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"THE PLAN IS FOR *ATLAS* TO BE A NAUTICAL *EVE ONLINE*"



Studio Wildcard's follow-up to *Ark: Survival Evolved* is certainly ambitious. The plan is for *Atlas* to be a nautical *EVE Online* – giving players the freedom to define their own story. By the time this issue is out, you should have a sense of how close it comes – Wildcard plans to release the pirate MMO into Early Access a few days before this issue goes on sale. We got an advanced look at the game in order to find out what it is, and – more importantly – what it hopes to be.

Elsewhere this issue, we reveal our Game of the Year picks, and review some of the biggest releases of 2018: *Hitman 2*, *Battlefield V* and *Fallout 76*.

Phil Savage

PHIL SAVAGE
EDITOR
phil.savage@futurenet.com

PHIL SAVAGE
Specialist in
Demolition Expert
Twitter
@Octaeder
This month
Was told that, no, *Dragon Age II* is not going to be our game of the year.



The PC Gamer team



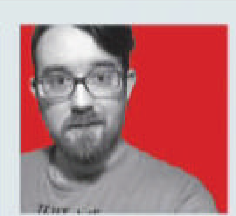
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Was told that, no, taking a trip to the aquarium is not going to be our game of the year.



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Specialist in
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This month
Was told that, no, getting a job as PC Gamer's news editor is not going to be our game of the year.

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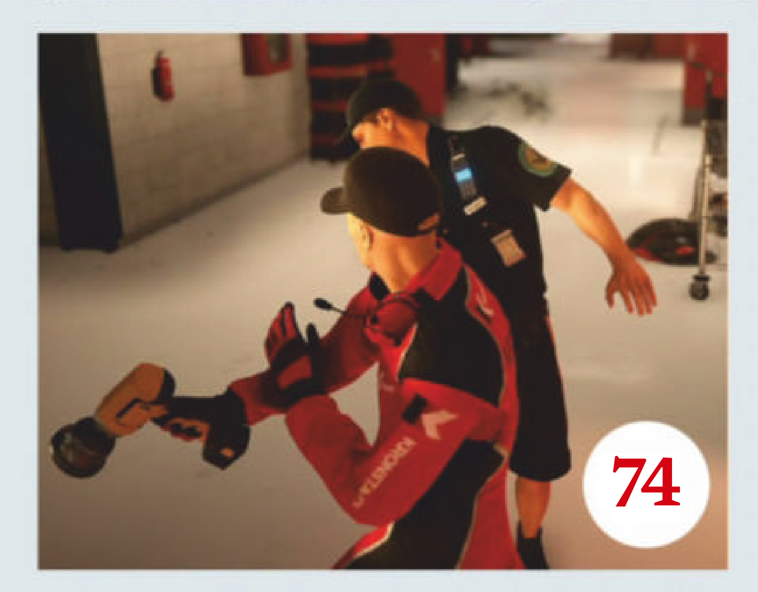
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Warcraft III is looking sharper than Mal'ganis's ears.

WORLD OF YORECRAFT

Blizzard is banking heavily on WARCRAFT nostalgia in 2019

It's a weird thing when the most exciting news out of Blizzcon this year is that *World of Warcraft: Classic* and *Warcraft III: Reforged* – a top-to-bottom remake of the original – are both arriving next year. I'm not complaining, though, as I'd never refuse an opportunity to go back and play some of PC gaming's most formative games, especially if they have a brand-new coat of paint.

Blizzard surprised everyone in the weeks before Blizzcon by announcing that there'd be a playable demo of *Classic* for all virtual ticket holders. It was a clear signal that, despite Blizzard initially humming and hawing about how long *Classic* would take to develop, things were moving along at a faster pace than we predicted. It wasn't all that surprising, then, that Blizzard also announced that *Classic* would be released in the summer of 2019.

> I TOOK MY FIRST STEPS INTO THE BARRENS WITH A DOSE OF SCEPTICISM

And, after playing several hours of said demo, it's clear that *Classic* is coming together perfectly. Though I'd forgotten just how painfully esoteric some of its systems were, it was exciting to jump back into *WoW* almost exactly as it existed back in 2006 before expansions like *The Burning Crusade* ushered in an era of evolution and iteration that would see it change into a fundamentally different kind of game.

Being a modern *WoW* apologist, I took my first steps into the Barrens with a hearty dose of scepticism. Surely nostalgia had sweetened my memories of adventuring here so

THEATRE OF WAR

SMITE



Arena mode in god-filled MOBA, Smite, got a facelift. Instead of a pit with no clear home and away ends, one now represents Hera's Greece and the other Bellona's Rome. Red-green colourblind players report some legibility issues so hopefully Smite's colourblind modes can help combat that. ■ *PW*

SEEING VISIONS

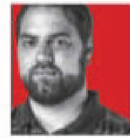
NO MAN'S SKY



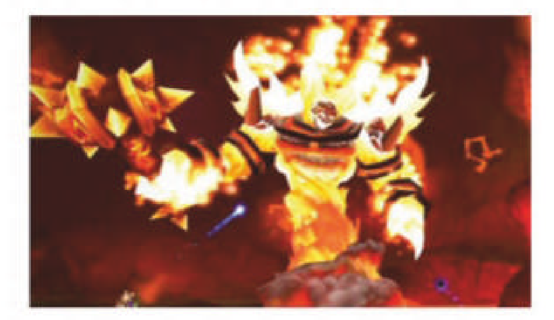
The space sim continues to evolve with a new update called *Visions*, which increases the diversity of the flora, fauna and terrain on planets. *Next* already made the game more visually interesting, so this is just a bonus. It's great to see *No Man's Sky* coming back from its rocky launch. ■ *AK*

ALERT! ALERT!

COMMAND & CONQUER



EA has announced remasters of both the original *C&C* and *Red Alert*. They're being developed by Petroglyph Games, a studio that was created by former Westwood devs. I'm dubious about whether a full remaster can capture the joy of the originals, but have my fingers crossed nonetheless. ■ *PS*





ABOVE, TOP: *Warcraft III: Reforged* should still work with existing mods.

ABOVE, BOTTOM: Experience the original *WoW*, warts and all.

many years ago. But what I found was an MMO so divorced from modern *WoW* that it feels wrong to compare the two. They're just so different, and I love that.

World of Warcraft: Classic is slow, ugly, and sometimes outright boring. But that relaxed, uncompromised pace also makes it easier to settle into the world and feel connected to it. It's fun to be excited over a minimal gear upgrade, or when I finally remembered where to find Mankirk's wife in that famously hard-to-solve quest. It's just nice to play in a version of Azeroth that isn't all about how quickly I can farm Azerite or whatever.

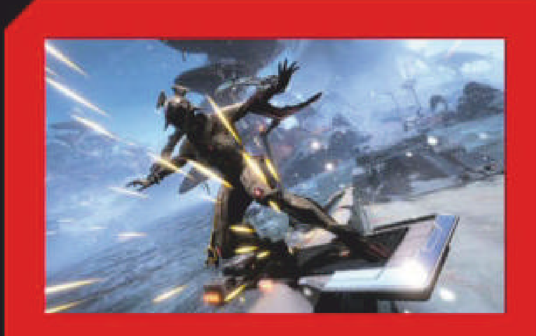
MEMORY LANE

Warcraft III: Reforged, however, is a very different kind of nostalgia trip. Blizzard is completely overhauling the graphics and animations but still using the same base game engine so that original *Warcraft III* mods should still work. It's the *Warcraft III* you remember only it'll look much better, and it's coming early 2019, too.

Amid backlash over announcements like the mobile-only *Diablo Immortal*, it's easy to criticize Blizzcon 2018 for being a lacklustre show. But the kid in me, the one who just wants to spend an evening playing *Warcraft III* mods or exploring Felwood, doesn't care.

Steven Messner

Highs & Lows



HIGHS

Warframe
The *Fortuna* update adds a massive open world zone on Venus, and gives you a hoverboard.

Hitman 2
The sequel has triggered a fierce leaderboard competition among the PC Gamer team. Phil is winning.

Black Mesa
On *Half-Life*'s 20th anniversary, the *Black Mesa* team released footage of its creepy reimagining of Xen.

Black Friday
PCGamer.com's Tom Senior got so drunk on Black Friday deals that he even bought an RGB mouse mat.

Fallout 76
Surprise! A Bethesda game has bugs at launch.

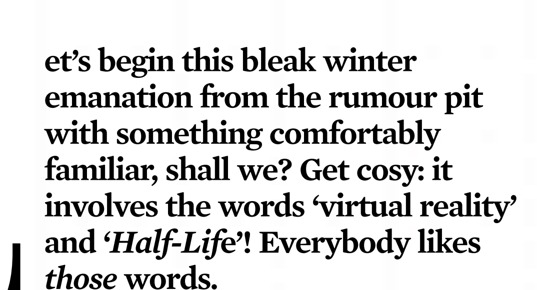
Artifact
Artifact's initial monetisation model won't fit in this space, but suffice it to say it has not been received well.

LOWS



The Spy

BUT WHO WATCHES THE SPY?



Let's begin this bleak winter emanation from the rumour pit with something comfortably familiar, shall we? Get cosy: it involves the words 'virtual reality' and '*Half-Life*'! Everybody likes *those* words.

Photos of a prototype VR headset with a Valve logo on the circuitboard have surfaced. Now, you very well may say, 'Hang on a minute, The Spy, isn't that just a Vive?' To which the answer is, as ever, *sort of*. The Vive, though based on Valve-birthed tech, is very much a HTC product. This new piece of kit – and it is new, featuring built-in headphones and 135-degree field of view – would be something that Valve makes and ships itself, like its range of Steam Controllers.

Rumour has it that the headset will come bundled with Valve's 'Knuckles' controllers – a follow-up to the Vive's existing paddles – as well as something called '**Half-Life VR**'. Obviously, everybody's going to want to know about the Knuckles controllers so let's dwell on them for an entire sentence. They've got a big bendy hoop!

Half-Life VR, though! Whispers suggest that it'll be a prequel, and The Spy wouldn't put money on a full campaign. Temper those expectations, friends. But just imagine the *outrage* if *Half-Life 3* turned out to be a VR game. Valve doesn't even have a Blizzcon to ruin, but the sheer animus flowing from the world's stock of pasty lads would likely ruin Blizzcon anyway.

Let's spare a moment for Blizzard, which either announced its mobile **Diablo** game too hard or not hard enough, who in either case sufficiently fumbled its debut to make those pasty lads *very animated indeed*. An excellent bit of investigative reporting by Kotaku's Jason Schreier casts a bit of light on the series of bad decisions which led to that particular nadir, and friends: it doesn't look good for Blizz.

Turmoil has followed Team 3 – the *Diablo* devs – since *Reaper of Souls*, with a second expansion getting suddenly cancelled by the powers that be. An initial stab at **Diablo IV** took a very different direction: a punishingly tough, third-person, *Dark Souls*-style dungeon crawler. Then that got cancelled. Now what's left of the team is working on something new, but there's not much known about it yet except for a return to *Diablo II*'s grim art style.

COLD SHOULDER

The uncertainty surrounding *Diablo* seems symptomatic of a broader shift, however. Blizzard is slowly taking on more and more of the culture of its parent company, Activision, particularly when it comes to cutting costs. This runs directly counter to what most players expect from Blizzard, which has always made big budget games very slowly. But it feels grimly believable to anyone with experience of working in an environment thick with stakeholder-minded middle managers. Now, those revenants of the Burning Hells rise at beloved Blizzard. Just not in the way you were hoping.

Oof. Well, let's end on something neutral. FoxNext, 20th Century Fox's new studio dedicated to games, virtual reality and – er – theme parks, is working on a new **Alien** game called **Blackout**. Given that the studio was founded following the success of *Alien: Isolation* and has a focus on VR, it *could* be a spiritual successor to Creative Assembly's ace immersive horror sim. That'd be nice, wouldn't it? In space, no one can hear you complain about *Diablo*. Spy out. ■

The Spy

TURMOIL HAS FOLLOWED TEAM 3 – THE *DIABLO* DEVS – SINCE *REAPER OF SOULS*

THE SPY
The Spy only trusts a stakeholder after they've killed at least one Dracula.

This month in... 2008





1 It's always tricky to pin down release dates – they're notoriously squirmy, writhing things. So spare a few thoughts for the PC Gamer team of 2008, who took a chance and went with the bold coverline: "Why Blizzard Rule 2009". *Diablo III*, *StarCraft II* and continued support for *World of Warcraft* pointed to a banner year for the studio. But no. Blizzard released no games in 2009.

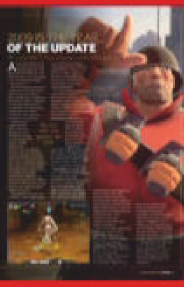
ISSUE
196, January 2009

ON THE COVER
Blizzard

IN THE CHARTS
Hallelujah – Alexandra Burke

2 Still, though, *World of Warcraft* did remain popular, in large part thanks to *Wrath of the Lich King*. Adam Oxford hung a 93% score on the MMO expansion.





3 Some other 2009 preview picks – *Rage*, *Deus Ex: Human Revolution*, *Metro 2033* and *Alpha Protocol* – would also miss the year. But the team did correctly predict the continued growth of the games-as-service trend. "You won't *need* the games talked about in the rest of this feature. You can just keep enjoying the permanent revolution of the games you already have."

Special Report

PCG INVESTIGATES

Those faces mean your rollercoaster is a success.

CREATING COASTERS

Authenticity is key for **PLANET COASTER** lead artist Sam Denney.

One Christmas, a young Sam Denney received a Bump and Go: a police car with a flashing light that drove itself around, changing direction when it bumped into something. Most kids would be content with that, but an inquisitive Denney took the toy apart because he wanted to know how it worked. And, luckily, because he'd requested a soldering iron for the previous year's Christmas present, he was able to put it back together again.

Today, his obsession with how things work continues: both in the motorcycle he tells me is almost always lying in pieces in his garage, and in his work on *Planet Coaster*, Frontier's deep, customisable theme park sim. As I talk to Denney he builds rollercoasters on a blank *Planet Coaster* park, zooms in, and explains how they work in incredible, excruciating detail. Most of it goes over my head, but his enthusiasm is strangely infectious.

One he builds is a faithful replica of a classic coaster that's a hundred years old, and he focuses the camera on the red leather seats, taking great pride in the fact that you can see the 'bumprints' of the thousands of people who have ridden it over the years. But the detail in *Planet Coaster* isn't just superficial: the mechanisms that actually operate the rides are completely accurate, and they prevent players from building anything that wouldn't work in real life.

"We don't do magic," says Denney. "That's a big thing for us. It's always a mantra for me that if something doesn't work in the real world, it doesn't work in *Planet Coaster*. One of the biggest pillars of the game is grounding everything you build in reality. Even our animatronic models (used to decorate your park) have pistons and motors operating them. I think this creates a better sense of connection for people playing the game.

"We didn't need to go into this much detail," he adds. "But we felt we had to. It involves painstaking research, sometimes as long as a week, just to build one track type." Which makes me wonder: who is this for? Surely an average *Planet Coaster* player won't notice these things. Is it worth the effort? "It's like playing *Forza* or something like that," he says. "You want to see the reality of the thing you're interested in represented in the game."

FORCE OF NATURE

The physics system that drives the coasters has existed in some form for years, going as far back as 2004's *RollerCoaster Tycoon 3*, according to Denney. "We have a really good physics simulation and it's based on elements such as forces of gravity, wind resistance, weight and friction." He adds that older coasters generate a lot more



What is Planet Coaster?

Frontier has a long history of making park sims. As well as a number of *RollerCoaster Tycoon* games, it also released *Thrillville*, *Zoo Tycoon* and *Jurassic World Evolution*. But *Planet Coaster* is the most complex, deep, and customisable park sim that the Cambridge studio has ever developed.

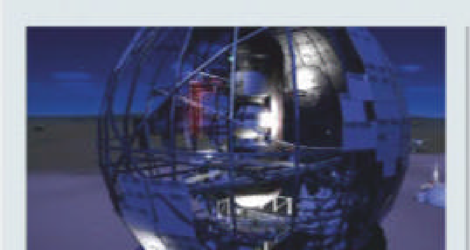




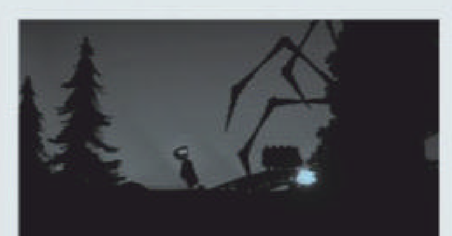
FAR LEFT: If your ride doesn't obey the laws of physics, it won't work in *Planet Coaster.*

LEFT: The game gives you detailed stats about how exciting, or boring, your creations are.

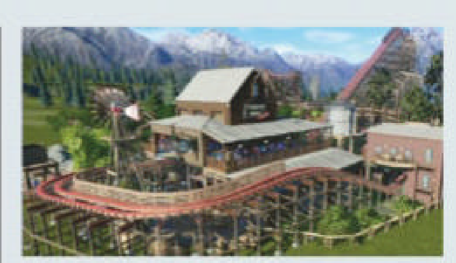
COMMUNITY SERVICE *Some of the best player-made coasters*



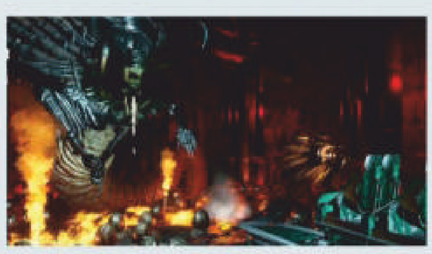
DEATH STAR
Creator MuFuTee
This coaster twists around the inside of a replica of the iconic space station.



LIMBO: THE RIDE
Creator Pixelated
This coaster captures the striking visual style of Playdead's morbid platformer.



THE DISUSED DISTILLERY
Creator Boochoo
This coaster sends you hurtling through an abandoned and dangerous distillery.



ALIENS: THE RIDE
Creator HinNya
With its Giger-inspired architecture, this coaster is as scary as it is thrilling.

friction because of their heavy nylon wheels and thick tracks, which is reflected in how they move in the game.

As someone who doesn't know much about rollercoasters, I can't really articulate what makes a good one. It's fast? There's a big drop? But enthusiasts, or 'coasterheads' as Denney occasionally calls them, have a much wider set of criteria. "First of all, it's how they're built, for example the traditional wooden coaster. Then there are things like negative Gs, barrel rolls, cobra rolls... the list goes on. And I researched all of this to bring it into the game."

In update 1.3.6, Frontier added Steel Vengeance, an authentic recreation of a coaster from Cedar Point – a theme park in Sandusky, Ohio that calls itself the 'rollercoaster capital of the world'. It loved Frontier's work on *Planet Coaster* and wanted to collaborate with the team. "They asked us to put their coaster in their game, and I was like, 'Give me your CAD files, please!' They did and I had access to their coaster engineers, [and] actual 3D models."

UNTIL I SPENT TIME WITH DENNEY, I HAD NO IDEA *PLANET COASTER* WAS AS REALISTIC AS IT IS

I ask Denney just how closely does the virtual Steel Vengeance match its real life counterpart in terms of speed and movement, and his face lights up. "We have a side-by-side comparison video. It drifts back and forth occasionally, because we can't control things like wind and air pressure changes, but it's pretty damn close. That was really satisfying, because our ultimate goal is making coasters that not only look and sound real, but move realistically, too."

BITS AND PIECES

"I was obsessed with this kind of thing as a kid," says Denney on one of his many enjoyable tangents. "Automatons, clockwork robots. That weird owl from Clash of the Titans. And that insane level of detail has always appealed to me." As he tells me this he zooms into the interior of a monorail model, which players never see, and explains that it's all been designed to work like it does in real life. I have met a lot of excitable game developers in my life, but never one as wildly passionate about the small details as Denney is.

Honestly, until I spent time with Denney, I had no idea *Planet Coaster* was as realistic as it is. Its rollercoasters are something I only ever viewed from above, assuming Frontier simply animated a train moving along a track. But the fact that every element of the engineering and physics of a rollercoaster has been accounted for, and simulated, is hugely impressive. And I can see why coaster enthusiasts are so enamoured of the game.

It's also, strangely, an important historical document. Rollercoasters such as Blackpool's famous (and dangerous) Wild Mouse have since been demolished – however in *Planet Coaster* they can live forever. "Wild Mouse was really horrible, but that's what made it great," says Denney. "They tried to put a preservation order on it, but it failed and it was torn down. But now it'll never disappear, it'll never die, which is a beautiful thing." ■
Andy Kelly

IN THE DARK

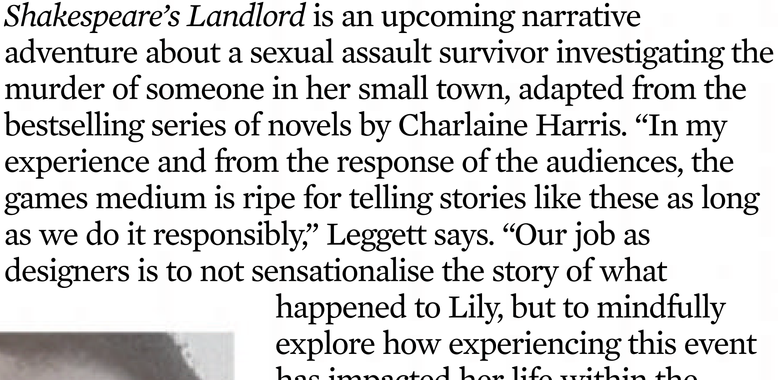
The developers exploring explicit themes with tact. *By Xalavier Nelson Jr.*

Content warning: sexual assault.

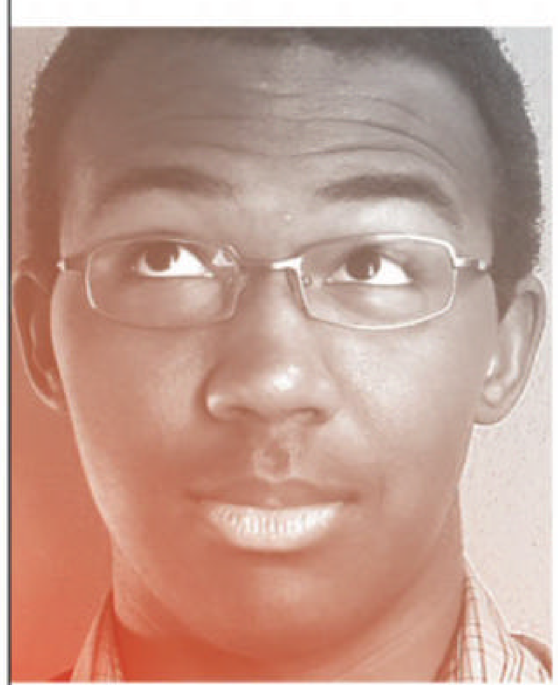
Jean Leggett is many things. CEO. Game developer. Writer. Stand-up comedian. Public speaker. Sexual assault survivor. Each has had an effect on the perspective and expertise she brings to her work, but the latter has particularly driven her to find better ways to depict mature content in *Shakespeare's Landlord*, a game that prominently features themes of sexual assault and PTSD. This search for sensitive, aware and nuanced ways to capture potentially problematic content is being echoed elsewhere, across the industry, in almost every genre imaginable.

"LEADING PEOPLE INTO DARK TERRITORY IS GOOD IF YOU DO IT CAREFULLY"

XALAVIER NELSON JR.
I'm a full-time game writer and narrative designer, with credits inside and out of gaming.



Shakespeare's Landlord is an upcoming narrative adventure about a sexual assault survivor investigating the murder of someone in her small town, adapted from the bestselling series of novels by Charlaine Harris. "In my experience and from the response of the audiences, the games medium is ripe for telling stories like these as long as we do it responsibly," Leggett says. "Our job as designers is to not sensationalise the story of what happened to Lily, but to mindfully explore how experiencing this event has impacted her life within the construct of a 2D murder mystery game. How stressful situations elevate her heartbeat and trigger anxiety, how she avoids close relationships and is constantly on the defensive, waiting for another predator." One prominent way Leggett and other developers are attempting to avoid sensationalisation is by being very careful about how they depict traumatic imagery. "Our choice of 'trigger art' is designed in such a way that you as Lily are revisiting memories from outside yourself. You are Lily but we don't want players to feel as though those scenes are directed at them."



When you add surreal elements to a world dealing with explicit or potentially problematic themes, you add a horde of other issues. How do you keep the strange from overwhelming the serious? How do you depict the unfathomable in the first place? Can the two support each other? Wadjet Eye's Dave Gilbert, developer of the *Blackwell* series, among other titles, argues that methods can be found. "Everything comes down to context. If you design a scene purely to shock or be exploitative, than that's all it is going to be. [Almost] everything I write is tied to the characters and story in some way, so while it can be shocking it is always grounded," Gilbert says. "This is why I love urban fantasy so much – you take a world that is very familiar and twist it around. ... Oftentimes the fantastical elements are loose metaphors for a message or a feeling that I'm trying to convey."

REFLECTING REALITY

Nuanced representation often takes iteration, as John Warner of Over the Moon Games discovered with *The Fall Part 2: Unbound*. At one point, it puts the player character inside the body of a 'Universal Companion' within its sci-fi universe – a sex bot. The finished game avoids many of the exploitative pitfalls associated with the concept, using this perspective to great empathetic effect. But, that wasn't always the case. "The first iteration of that scene was an absolute moral abomination," Warner says. The Universal Companion was forced to have sex with someone they found repulsive as part of their duties. "Aside from how uncomfortable it made playtesters, it was so heavy it was derailing our story. We had to spend a while thinking and feeling about what we were trying to say, why the scene was important, what we believed was right, and also, what people were comfortable with. ... I think what we have is in a way equally horrific, but less likely to trigger upset in our viewers, which I think is how these things should be handled. Leading people into dark territory is good if you do it carefully."

Doc Burford of first-person adventure *Paratopic* defends the use of grotesque subject matter in games, as it may reflect the experiences of many players. "I've been homeless, lived in the ghetto, had to beg people for money just to eat. I've been friends with former drug dealers and thieves. I knew a serial killer. The world I live in is cruel, violent and unforgiving. Why not make a game that reflects my reality? Why shouldn't I share my experience through my art? Pretending that art shouldn't be violent and ugly is a luxury only afforded to rich kids."

Adding nuanced, explicit content takes time, effort, expense and iteration to do properly. However, as shown by these developers and others, it *is* work worth doing. ■

Upcoming murder mystery *Shakespeare's Landlord* shows traumatising events through distorted, distancing imagery to avoid gamifying the experiences of sexual assault survivors.

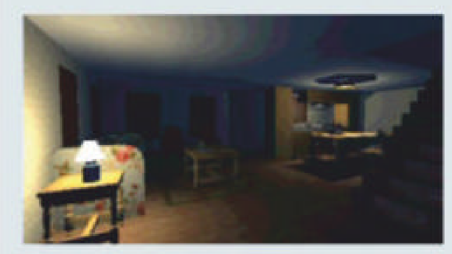




LEFT: *Paratopic*'s surreal world of poverty and violence is grounded by the experiences of its developers.

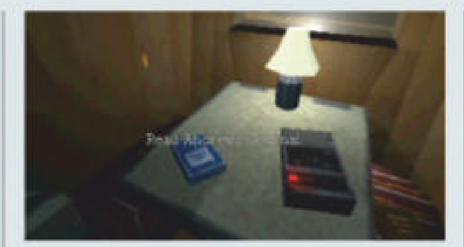
FAR LEFT: *The Fall Part 2: Unbound* gives your violation of its AI characters' operating principles weight, turning their perspectives into adventure game verbs so you can help them recover.

HOW TO *Nathaniel Berens on how he constructed a haunting narrative in* Sagebrush



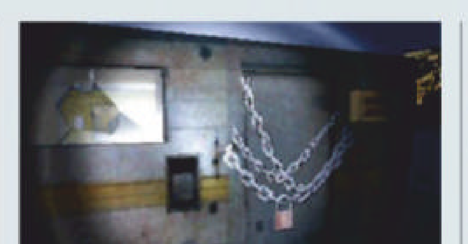
INTENT

Berens wished to depict a cult with more nuance (and realism) than is typically seen in videogames. "That necessarily meant brushing up against sensitive topics like physical, emotional and sexual abuse," Berens says.



RESEARCH

Berens scoured books, interviews, and audio recordings (including the chilling final moments of Jim Jones' Peoples Temple) for first-hand information on cult operations, as well as how they affect people in their thrall.



ACKNOWLEDGING BLIND SPOTS

Father James, the cult patriarch, is a contradictory mix of character flaws and empathic manipulation. Faith and smoke. This was intentional, but Berens admits his inability to relate to the character weakened the depiction.



EXECUTION

Players experience the story after its events, distancing them from horrors of the compound. Imagery is also evocative rather than graphic, allowing you to analyse what happened in a way that disturbs but retains dignity.

DISCLAIMER As a professional developer, I am on friendly and/or working terms with parties mentioned in this piece.

PC GAMER
CHALLENGE



PLAY 100 GAMES IN 2018

Clear your backlog and expand your horizons. Here's what the team played this year

A SUCCESS



Phil Savage
Editor

I DID GO OUT OF MY WAY TO TRY GAMES I'D HAVE OTHERWISE SKIPPED

This is the final month of our 100 games challenge, and so I figured it was time I reconstructed the list I lost earlier in the year. I'd played 75 games. I'd failed.

On the other hand, I did go out of my way to try games I'd have otherwise skipped. When I saw Steven Messner writing about his love of Warframe on PCGamer.com, I gave it a go. After enjoying a tense Dragon Ball FighterZ tournament at this year's EVO, I tried the game to see if it would be my cup of tea.

I even went back and finished games that would have otherwise been discarded on the pile of shame – most recently Assassin's Creed Origins, which I enjoyed a lot once I got into the swing of things. The challenge definitely made me more open to trying new games, and so, final tally aside, I think it was a success.

OVERARCHING PURPOSE



Philippa Warr
Deputy Editor

I'M ALREADY DIGGING FOR THE STRANGE, SMALL PROJECTS

I did it! I played 100 games! In that respect the challenge went well. But what of the overarching purpose? The idea behind the challenge was less about meeting the target and more about being encouraged to play different or new games. Success there is more nebulous as my love of tiny games means I'm already digging for the strange, small projects which are ideal for this challenge.

The area where I tend to fall short is longform gaming – the stuff which tends to populate game of the year lists is a particular blind spot. I tried to make sure I had some bigger games on my list – Bioshock was one – but it was hard to persuade myself towards larger projects.

My final list is indie-focused. I don't regret that for a second, but it leaves me unsure as to whether I met my own criteria for success!

GOOD SWING



Andy Kelly
Section Editor

I RECKON I'VE PLAYED ABOUT 50-60 SINCE JANUARY

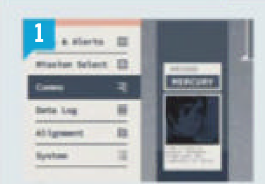
I lost count in the summer, but I'm pretty sure I didn't manage to play 100 games. Still, I took a good swing at it, and I reckon I've played about 50-60 since January.

The great thing about PC is that, thanks to the sheer number of free, cheap (and short) games, there's plenty to bulk the numbers up. I'd like to see someone attempt the same challenge, and succeed, on an Xbox. I did find myself playing stuff I might've put on the eternal backlog, just to get into the spirit of discovery, so that's definitely a positive thing.

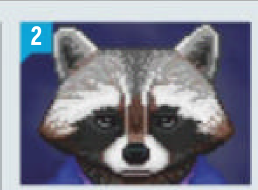
I daresay I might have beaten the challenge had a certain cowboy game not distracted me for a month. I'm forever feeling guilty about all the cool-looking games we get sent but don't have time to look at, so this was a good way of putting some time aside to check them out.

THE TOP 5

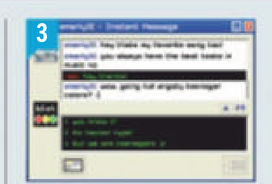
Games we discovered thanks to this challenge

1


HEAVEN WILL BE MINE
Phil: A visual novel about mech pilots fighting and flirting in space. Delightfully weird.

2


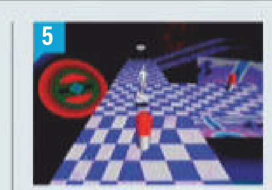
THE RACCOON WHO LOST THEIR SHAPE
Pip: A raccoon medium acts as a go-between for shapes.

3


EMILY IS AWAY
Pip: The story of a relationship unfolds via a retro (god, I feel so old) chat window.

4


TENDER LOVING CARE
Andy: A bizarre softcore FMV game starring the late, great John Hurt. Not his finest work.

5


OK/NORMAL
Andy: Imagine a David Lynch fever dream rendered with original PlayStation graphics.

Want to track your progress? Print out our checklist at **www.bit.ly/pcgchallenge**

SEND

There's a party in our inbox and everyone's invited

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Phil: Thanks for getting in touch, Arizona Department of Corrections, with this genuine email that you sent us in response to our recent *Weedcraft* preview. While I apologise for the infraction, I'd like to assure you that you can't – in real life – cultivate drugs by "clicking and holding the mouse". It's a game. We write about PC games.

Fully mapped

I enjoyed Fraser Brown's article on the early history of strategy games. I do think he missed one of the giants of the 4X genre, though – unsurprising since it never had the popular acceptance of *Civilization* or the background of *Dune*. But *Emperor of the Fading Suns* was, and remains, head and shoulders above them all. Over 70 worlds to negotiate with. A far-future tech tree. Intrigue within houses contending for the throne. A galaxy-spanning church that might aid or excommunicate you with significant effects on your interaction with other factions.

Fading Suns was a brilliantly imagined universe that the game expertly recreated. Gamers have kept it alive and playable down to the present. It surely deserves a mention in your history.
Michael

Phil: Even an article as thorough as Fraser's is going to have some gaps, but I'm happy to highlight another classic here. You can't buy *Empire of the Fading Suns* digitally, alas, but abandonware sites have you covered.

Hard transition

I am a long-time, yet inconsistent, reader of the magazine. And it is because of this magazine I got into PC gaming and why I became a game developer.

I recently moved from the UK to the US to marry my fiancé and it has been a hard transition at times; you never realise just how much you will miss about your home country until you leave it. One thing that has helped provide a sense of comfort and normalcy during this time has been being able to resubscribe to the magazine. During those moments, I feel like I am home again and for that I simply want to say thank you.
Phill

Phil: This was a heartwarming email to receive, Phill. A perfect antidote to the Arizona Department of Corrections being weird about a preview. Glad we can be of help!



Bill's a fan of the golden era of RTS games.

Love and Warcraft

Warcraft II is the reason that I am a gamer and have subscribed to PC Gamer for most of 20 years. In 1995, I was visiting my local game store in pursuit of a programming book. I wasn't a gamer, but the store clerk convinced me to buy *Warcraft II*. I loaded *WCII* up with the intention to play for an hour. I played over 30 hours over the next two days. I have played many RTS games over the last 20+ years, but nothing compares with *WCII*.

I was thrilled to see it mentioned in the History of Strategy Games. The '90s and early '00s were the age of RTS games. Each year I hope that RTS will return. One can hope.
Bill Wilson

Phil: Fingers crossed the release of the *Warcraft III* and *C&C* remasters will persuade studios that there's still life in RTS games!

YOUR REVIEWS

It's the most hated game at the moment and I love playing it! Can't wait for more! Don't jump on the hate train!
R3troDaD
He's talking about *Fallout 76*, in case you couldn't tell.

I'm 70 hours deep into *AC: Odyssey*. It's a fantastic Greek demigod simulator that's only held back from true greatness (for me) due to its connection with the larger *AC* franchise.
Eduardo Valdes
We take it you're no fan of overwrought sci-fi nonsense about an ancient precursor race sending messages into the future?

Surviving Mars. It scratches that sci-fi and city-building itch, and I just like the look of those tiny drones, they're so cute!
MisterSnicker Doodles
If humanity ever does colonise Mars, know that we will have done it for the cute drones.

Celeste is so fucking good!
Andrew Shutelov
We appreciate brevity in a review.

Just finished *Thronebreaker*. Truly an awesome game. Sad so many people are gonna miss it because they believe it's just *Gwent*... it's much more than that!
Felipe Perez Roa
Yeah, regular *Gwent* doesn't frame an abstract card battle as a drinking contest with a dwarf.

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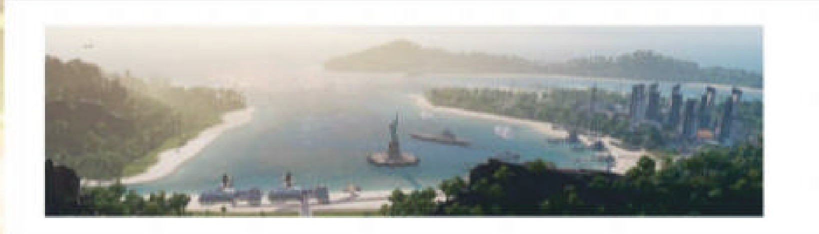
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NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
January 25, 2019	Limbic Entertainment	Kalypso Media	www.worldoftropico.com

TROPICO 6

El Presidente trades single islands for archipelagos

The problem with a series about building on an island is that, sooner or later, you're going to run out of island. Previous *Tropico* games could, at times, feel pretty limiting. Not only were you surrounded on all sides by clear blue ocean, but even within your verdant tropical paradise, mountains and cliffs would often restrict your ability to expand.



Not so in *Tropico 6*. In many ways this sequel will be familiar to *Tropico* fans, despite it having a new developer – *Might & Magic*'s Limbic Entertainment – at the helm. But for all that's the same, a few new features should help alleviate any claustrophobia. "We figured for El Presidente, one island wasn't enough," says lead level designer Mark Mussler, "so we wanted to provide him with a bigger playground to operate in." Each mission will now take place on an archipelago – with one main landmass surrounded by smaller satellite islands.

"It perfectly fit into the *Tropico* theme because it underlines this tropical Caribbean atmosphere," says Mussler. "But of course we also wanted to ensure we gave the player meaningful ways to engage with the archipelagos and new islands." This is primarily achieved through resource distribution. In one of the maps I'm shown, certain resources like iron and gold are limited to a satellite island, forcing players to create mines far away from their main settlement.

As in previous games, each Tropican is simulated – they won't just appear in the place you need them to be. That means you need to connect your islands, either through bridges or by providing public transport. By building a landing dock and teamster port, citizens will be able to take boats between islands, and resources can be transported to your main dock.

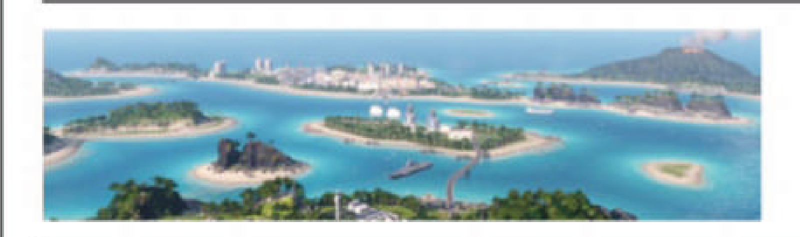
In *Tropico 6*, the simulation is being pushed further. In *Tropico 5*, workers had a permanent effect on the production output of their workplace, even if they were weren't in the building. Here, though, workers will clock in and out of their job, and the productivity of each building will reflect that. "Production buildings will only operate when workers are on-site," says Mussler. "That's why it's so important, especially in *Tropico 6* with the archipelagos, to ensure that travel times are as short and efficient as possible."

Efficiency has always been an element of the *Tropico* series to an extent. But, with satellite islands forcing Tropicans to travel longer distances, infrastructure is more important than ever. Even if you connect all of your islands with bridges, only the richest Tropicans are able to run cars – unless you spend $1,000 per month on the Free Wheels edict. If you're not prepared to do that you can build bus stations instead, but it'll be on you to create efficient routes.

In a mission I played in the beta build, I found it more useful to grow small communities around key businesses on satellite islands. Away from the main city, a small logging settlement emerged, focused on felling trees and turning the logs into planks that could be exported. The businesses required workers, which meant building houses, and the residents required services and entertainment, which meant more businesses. It's not a major new direction for the series, but I enjoyed creating ad-hoc communities.

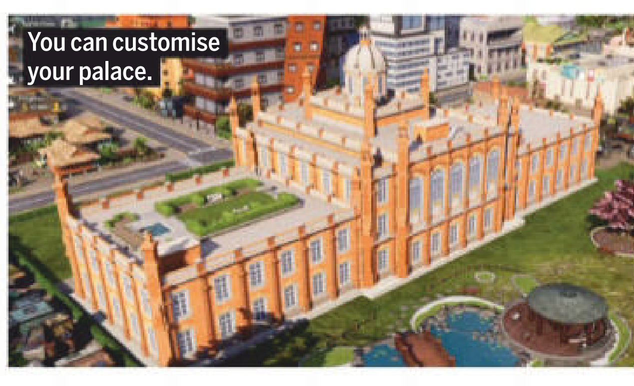
Many of *Tropico 6*'s new features are simple in nature, but let you make the most of the space available on each map. Tunnels, for instance, let you extend roads through mountains. And teleferics can transport Tropicans up to hills and plateaus, letting you build at different elevations. Not all options will be available at the start of each mission, though. As in *Tropico 5*, you'll need to progress through different eras with new building options, edicts and research unlocking as you »

"WE FIGURED FOR EL PRESIDENTE, ONE ISLAND WASN'T ENOUGH"

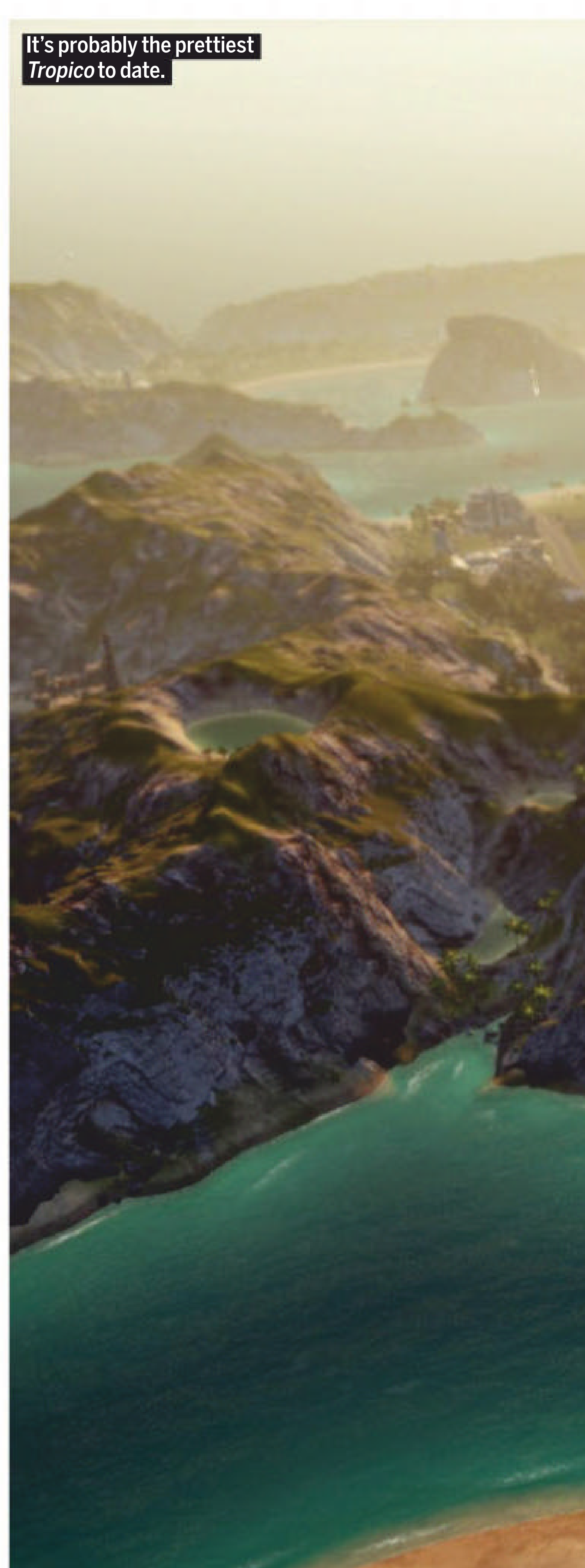








You can customise your palace.



It's probably the prettiest *Tropico* to date.

progress. And even when you've hit the relevant time period, you'll need to spend money to unlock blueprints for more advanced buildings.

Tropico 6 will launch with 15 story missions, and each mission map can also be played in sandbox mode (on top of a further 15 maps designed exclusively for sandbox play). Based on what I've seen, each has some interesting wrinkle designed to make you engage with various systems. In one mission I'm shown, various edicts are randomly activated by the AI. This forces players to react to the consequences of decisions made outside of their control – be it loss of faction standing, additional expense, or, to pick a specific example, the loss of productivity that results from enforced siestas.

SLUMMING IT

Another mission sees El Presidente attempt a grand experiment to create a city free of houses – forcing citizens to live in tents and shacks. There's no great story to the campaign – it's an anthology of absurd scenarios, filtered through the series' politically charged humour, but the best seem designed specifically to subvert the city-building genre in fun ways.

Even in sandbox modes, the design of the archipelagos will force players to get creative. Many will be missing resources, requiring you to source them from elsewhere. This can be done in a number of ways, either through trading or via the new raid system. Create a raid building – such as a pirate cove – and you'll be able to spend raid points to send a crew out on missions to steal the things you need.

Raid buildings also let you trigger a heist – a mission to steal world wonders. "When you activate a heist it basically unlocks a quest that the player needs to fulfil in order to ensure that the people you send out to steal the buildings can actually achieve it," explains Mussler. "It does take a while to accomplish that, but the thing with world wonders is they're not just a gimmicky thing that look cool."

Mussler's island, for instance, is the new home of Saint Basil's Cathedral, which used to live in Moscow. Its bonus means that whenever a citizen gains or loses faith happiness, their other happiness aspects are all affected by the same amount. It means, as long as Saint Basil owners focus on giving Tropicans access to churches and cathedrals, and fulfil requests made by the religious faction leader, they can mitigate the happiness penalties that occur for poor food, high crime or insufficient healthcare.

Each wonder offers a different bonus. The Statue of Liberty, for example, ensures that all tourists arrive with 100% happiness and in full support of El Presidente – a boon that I'm not sure is shared with its real-life counterpart. The Great Pyramid of Giza, meanwhile, increases the construction rate of each worker. Presumably the countries that used to own these wonders will have something to say about their removal, but that's all part of the fun of *Tropico*'s geopolitical tensions.

RAID BUILDINGS ALSO LET YOU TRIGGER A HEIST – A MISSION TO STEAL WORLD WONDERS

GOING BROKE

In addition to having to placate political faction leaders and superpowers, as well as your own citizens, El Presidente can, once again, go into business for himself – siphoning off money and diverting it into his Swiss bank account. This is something I've always wanted to see expanded in a *Tropico* game – the series is great at offering ways to abuse your power, but hasn't always provided a good reason to do so. In *Tropico 6*, though, your Swiss money can be given to a broker in exchange for a variety of favours.

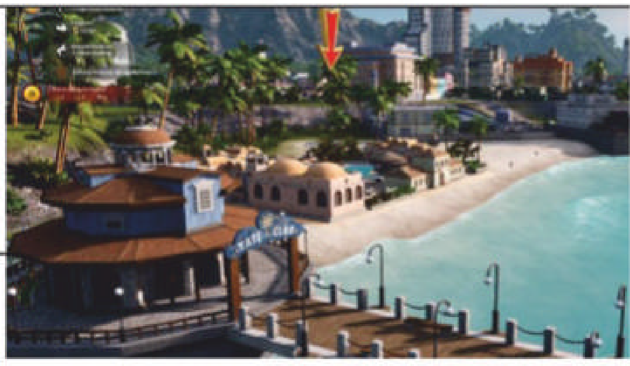
If you're about to lose an election, for example, you can pay your broker to launch an image campaign. "When elections come up, and if you identify you're not doing well, this is a short-term thing," says Mussler. "It won't help you in the long run but at least it can get you past an election." The broker can also be used to effectively cancel a faction request without suffering a reputation penalty. Beyond these specifics, though, you can also exchange Swiss money for resources.

Ultimately, *Tropico 6* doesn't feel like a revolutionary new direction for the series. Instead, it's positioning itself as a definitive version – reintroducing elements removed from *Tropico 5*, such as election speeches and work modes, as well as tweaking and expanding key systems to offer more options and new ways to define how you want to play. But, while never groundbreaking, having a larger canvas to create on does make a difference. Will it be enough to make *Tropico 6* a must-play? Limbic is hoping you'll vote yes.

Phil Savage



All good city-builders are about 75% overlays.





Housing in the modern era gets extra.

NEED TO KNOW

RELEASE 2018(ish)	DEVELOPER Funomena
PUBLISHER Annapurna Interactive	LINK www.funomena.com/wattam

WATTAM

A vibrant toybox from *Katamari Damacy*'s creator

W*attam* is bright, inventive and cheerful. In fact it's so intensely bright and cheerful that a colleague walked past my desk, stopped, walked backwards until she could see the screen again and asked, "What is this *adorable* thing?"

PLAYED IT

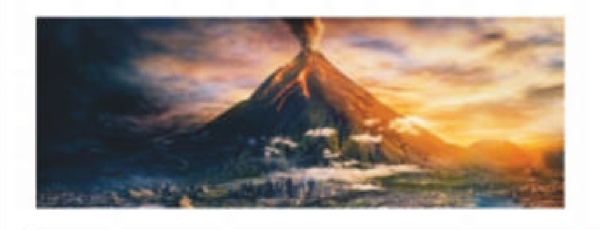
This adorable thing is a puzzle-ish sandbox from the creator of *Katamari Damacy* and *Noby Noby Boy*. You start as a bright green cube in a hat. This cube is obviously the mayor of a floating slab of ground. At first you're alone, but a crowd of perky oddballs starts to gather as you learn how to interact with the world. You can hop into the bodies of other characters, hold hands with them, climb, jump and (as the mayor) use your hat to make little explosions which delight everyone else.

To progress I needed to perform specific tasks. Tasks like possessing and stacking giggling golden poops to reach the height of a bowling pin. It's daft and childlike in its inventiveness. The controls could be a little clumsy, and sometimes I had no idea what I was supposed to do. Experimenting and accidentally finding new surprises tended to carry me through without too much friction, though.

Most charming of all was the feeling of being in a playground. The little characters really felt like they were playing with one another, wearing each other's hats and begging the mayor to send them flying into the air with another explosion.

Philippa Warr





NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
February 14, 2019	Firaxis	2K	www.civilization.com

CIVILIZATION VI: GATHERING STORM

Go green in this 4X expansion, or face the consequences

Following the central theme of 'man vs environment', *Civilization IV*'s first expansion will ask you to deal with late-game climate change, leading to rising sea levels and the loss of city districts. Along the way, you'll encounter river floods, blizzards, droughts, volcanic eruptions and other natural disasters that can provide risks and rewards.

FIRST LOOK

The most intriguing new feature is a dynamic climate system that will track the amount of carbon that has been added to the atmosphere by all civs on a map. This won't be a major factor until around the industrial age. Buildings and districts that use coal and oil for power increase carbon levels, and removing forest tiles can speed up this effect.

Left unchecked, it will lead to melting ice caps and rising sea levels. The severity of other semi-randomised disasters like blizzards and floods will increase as well. The initial stages will cause coastal tiles to become temporarily flooded, damaging anything built on them and preventing construction. Eventually, they can become permanently submerged, resulting in the loss of any non-city-centre districts they contain.

You aren't powerless to defend against catastrophe. Technology will unlock the ability to build sea walls that can prevent further flooding. It's not a perfect solution, as the cost to maintain these barriers will increase the higher the sea level rises. Planting new growth forests and researching techs like carbon capture can also help slow down or reverse the effects of climate change.

YOU AREN'T POWERLESS TO DEFEND AGAINST CATASTROPHE

This expansion also introduces the concepts of power and consumable resources. Buildings like factories can now be powered or unpowered, providing severely decreased production yields if they're not getting the juice they need. Coal and oil will be the cheapest and easiest resources to use for power in the early industrial era, but it's also now possible to deplete them permanently. Later-game techs introduce renewable sources of power to make up for this.

Long before you have to start worrying about carbon emissions, however, the map is going to throw some other reminders of nature's fury your way. All rivers will flood semi-randomly, potentially damaging constructions but leaving behind fertile soil. Volcanoes can erupt and scorch adjacent land, but also create similarly rich deposits. There will also be blizzards, storms, droughts and coastal floods to deal with. Each will provide some kind of potential reward to compensate for the risk of building in a danger zone.

CAMPAIGN TRAIL

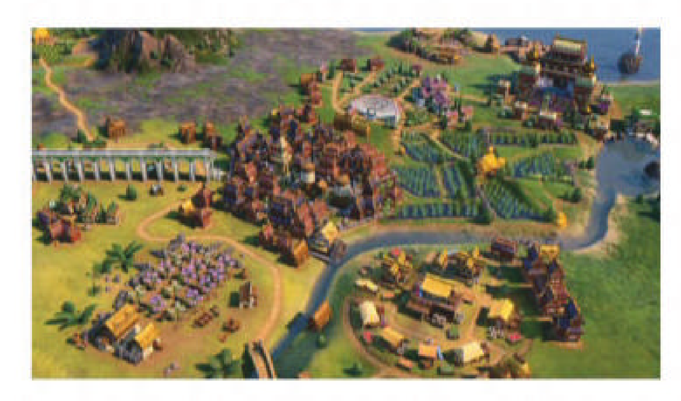
The World Congress is also making a comeback, along with a diplomatic victory condition that requires you accrue Victory Points. Players will now have a lot more control over resolutions, building them from components the way you might construct a peace treaty. Emergencies, introduced in *Rise and Fall*, will now trigger a session of the World Congress where the international community can vote on whether or not to act collectively – and, if you caused the emergency, giving you the chance to sweep things under the rug.

There are tons of other smaller changes on the way, like an expansion of the espionage system (including the ability to blow up dams your rivals have built), updates to trade routes that increase their yields if you have a continuous route by sea or rail to the destination, and a new future era for tech and civics in which the order of unlocking each advancement is randomised at the beginning of a game. With eight new civs also planned, it should all amount to a seismic shift in your *Civ VI* campaign.

T.J. Hafer



Renewable energy can keep the lights running.





The are benefits to volcanoes, and many, many downsides.



Districts built near water are at risk of flooding.

Horses: they're chairs that move!

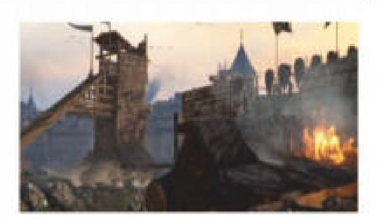
NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
"Soon!"	Booming Games	My.com	www.conquerorsblade.com

CONQUEROR'S BLADE







Chaotic sieges and awkward combat in medieval multiplayer

Surveying the battlefield, I see mostly chaos. The armies of my allies are split up and spread out. Some are charging through the centre, taking heavy losses from cannonballs and flaming arrows. Others head left, through an apparent hole in our enemy's defence, but smack into a much larger force that's waiting for them on the ramparts. It's a mess. A chat message appears. "Shit team."



Conqueror's Blade is a free-to-play multiplayer game that plays like a cross between *Mount & Blade: Warband* and *Dynasty Warriors*. Like the former, you directly control a single commander while issuing basic orders to a squad of troops. Like the latter, you're a powerful warrior, fighting amid large, clashing armies of basic grunts and more powerful heroes. Only here those heroes are other players, each with their own squad to command.

My ally isn't wrong in his assessment of our team. Still, this is a beta designed to test the siege mode – a 15v15 battle to capture or defend a castle – and there's a lot to learn. You have to order troops to move siege towers or battering rams. You have to tell them where to go and who to attack, and make use of formations. You also have to find the most advantageous job for your own hero, whether that's using siege weapons or hunting other players.

Me? I'm just trying to score a kill. I gave my hero a short sword and shield, which I deeply regret. Every other player I meet seems more powerful, more agile or more graceful – benefitting from the reach of a poleaxe, or the range of a short bow, or the speed of dual blades.

It's possible – likely, even – that I haven't yet unlocked enough skills to play my chosen class efficiently, but even at a basic level the combat isn't much fun. Skirmishes are an awkward mix of stiff, weightless strikes and MMO-style abilities. *Conqueror's Blade* shows promise in the scale of its battles, and in the way it encourages you to think tactically about the placement of siege weapons and the positioning of your troops. But, right now, this is a combat game in which attacking an opponent doesn't feel enjoyable.

YOU'RE A POWERFUL WARRIOR, FIGHTING AMID LARGE, CLASHING ARMIES

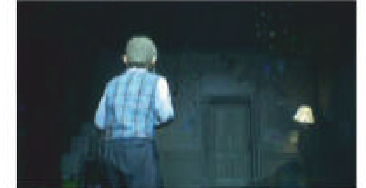
TURF AND SERF

This is only a sample of what the final game has planned. While I only had chance to try the siege mode, the full game promises a large sandbox map in which hundreds of players will compete to control territory, and to develop and grow their faction's economy through trade routes that will need protecting. This could be an exciting strategic layer on top of the more immediate tactical manoeuvring – requiring players to plan beyond the simple skirmishes of siege mode. But, as intriguing as *Conqueror's Blade*'s ambitions may be, they won't mean much if it can't improve the fundamentals.

Phil Savage


Claire is looking for her beefcake brother, Chris.









NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
January 25, 2019	Capcom	In-house	www.residentevil2.com

RESIDENT EVIL 2

Head back to Raccoon City in Capcom's zombie-infested remake

I only remember small things about 1998's *Resident Evil 2*. Making my dad buy it for me because I wasn't old enough. The grainy cutscene showing the licker crawling on the ceiling. Unloading Leon's last three or four bullets into the giant sub-boss, Tyrant. Me and two mates crowding around a CRT TV to finish it, because we were too cowardly to do it alone.

Still, it's possible this all means nothing if you've never played *Resident Evil 2* before, and that's more likely on PC, where it was ported over a year later (we didn't have a gamepad in my house at the time, so I tried playing it with the budget joystick I used for *X-wing*, like an idiot). It was a fixed-perspective survival horror game in the vein of *Alone in the Dark*, using prerendered backgrounds to bring its setting to life. They still look pretty nice today, if low-res. First, the game took you to the zombie-infested Raccoon City, then its spookily quiet police station, and, later still, the facility of the evil Umbrella Corporation.

PLAYED IT

This remake is a third-person shooter in the *Resident Evil 4/5/6/Revelations* mould, though the general spirit of the original game is here: you don't always have enough ammo to fight the enemies in front of you, and sometimes it's better to run away. There are still plenty of keys to find and puzzles to figure out, but their exact setup has changed, so you can't just race through with your knowledge of a 20 year-old game.

You might recognise a puzzle from the original version of *Resident Evil 2*, but how it's represented in the remake could be completely different. This means my three-or-so hours with the game offers a mix of nostalgia and mild surprise, which I think is probably a better approach than a faithful recreation.

Playing the remake with my hazy memories is more satisfying than putting it side-by-side with the original, I figure. It lets me work out which parts of *Resident Evil 2* have left an impact that's lasted almost two decades – the cavernous and iconic Raccoon City P.D. building has, of course, as well as its winning leads, floppy-haired Leon S. Kennedy and the crossbow-wielding Claire Redfield (except she didn't have one in the build I played). I've always had a real soft spot for the daft, one liner-spewing fitties who lead the *Resident Evil* series. Two decades of advances in cutscene presentation pay off: as in *Resident Evil 7*, the characters are photorealistic, the violence looks nasty and very little is played for laughs.

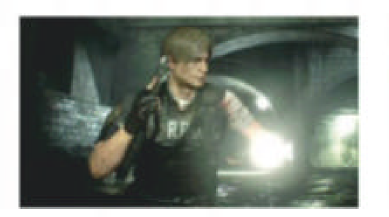
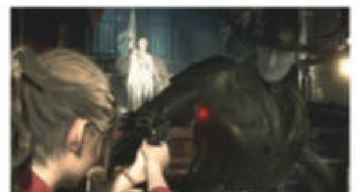
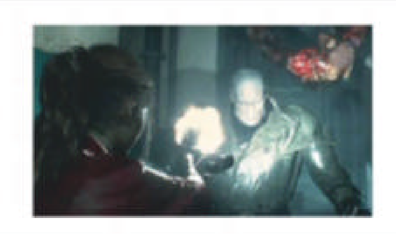
SEWER DIVING

My demo session is split across two areas of the game. Like *Resident Evil 2*, the remake has two campaigns starring each protagonist, and I've played about an hour with Leon, then two or so with Claire. Leon spends a little time in Raccoon City before ending up in the sewers, while Claire is exploring the RCPD headquarters. Leon's section in the sewers is grim to look at. You can really feel the poo sloshing through the drains.

It's a faithful remake in the areas that count, which means it looks the part and retains the series' idiosyncrasies. Even though this is the first time I'm seeing them in 3D, locations are still entirely familiar to me – my muscle memory from playing this game almost 20 years ago tells me where the library and staff room are. The police station is also lit and coloured like I remember it. This isn't a grey, drab revision of what *Resi* used to look like: it's full of bright colours and lighting that reminds me of what it used to look like in isometric form. How they've captured the space is really fascinating, and having no loading screen when you open a door gives exploration this strange immediacy. Unlike 2012's *Operation Raccoon City*, which felt like a budget »



THIS ISN'T A GREY, DRAB REVISION OF WHAT *RESI* USED TO LOOK LIKE

retread of classic *Resident Evil 2* locations that never earned it, this is the real deal.

The story has also been expanded for the remake. I play one section as Ada Wong, who dabbles in corporate espionage and is trying to get hold of the deadly G-virus. Her section gives you a Batman-style EMF visualiser that lets you activate objects remotely – you can even see their wiring through the walls.

I'm trying to stay away from spoiling puzzle solutions, but one highlight for me was when I ended up in a sewer area and I had to activate a switch that dropped a ladder in order to escape. The space was filled with slightly too many enemies to kill with my limited ammo supplies, even if I'd been constantly landing headshots. That meant I had to carefully run around them, seeking the switch out. I'm not used to having an actual ammo shortage in a recent *Resident Evil* game; even *Resi 7* ended with lots of bullets being unloaded into identical goop monsters.

Zombies will also get up when you think you've killed them, so I died a bunch during this scenario, trying to work out the optimal way to get around the enemies, activate the switch (which takes a few nervous seconds) and escape. If I wasted my bullets here, who knew what was waiting for me next? Crucially, Ada doesn't have the armoury that Leon does, or a knife that does melee damage, so playing as her offers a different challenge.

Claire's section is a more mixed experience. The opening, set in the RCPD's parking lot, is fantastic. The second part, set inside the RCPD building, I enjoyed less because one enemy disrupts the flow of play so much.

Capcom's chosen to show off a section of the game where you're being constantly pursued by the monster Tyrant, which means I spend a lot of the demo sprinting through classic locations trying not to get beaten to death, instead of taking the time to drink them in. I assume the Tyrant's appearances in the game are scripted, but there is some suggestion that he'll turn up whenever you make a commotion.

In this demo, he follows Claire everywhere, up and down stairs, into different parts of the building. You can hear him stomping from rooms away. You can blast him with a few grenades or score a few headshots in order to temporarily slow him down, but it doesn't seem worth wasting the ammo.

I guess Capcom wanted to create some real peril and excitement, but given this is my first sample of the remake, I'm not overly fond of how the pace is dictated by this giant jerkwad forever chasing after me. Hopefully in the context of the game, it'll make more sense.

I will say, though, I love how Capcom has done zombies this time around. As well as being hard to kill, they're a real threat in numbers. Lickers, meanwhile, are brilliantly introduced in this demo: they're hiding behind a door in the parking lot near the start of Claire's section, teased by a quick look at one darting around a corner. Their gross, exposed brains make their designs even more disgusting than before.

I also like how other elements from the original game have made the journey across. The police station is packed with items to find, including better weapons that are locked away. There are still ludicrous locks with shapes like hearts and spades that need specific keys to be opened (who designed this place?). Sometimes you have to examine an item to discover its true purpose, pressing a correct combination or opening a lid to obtain what you need.



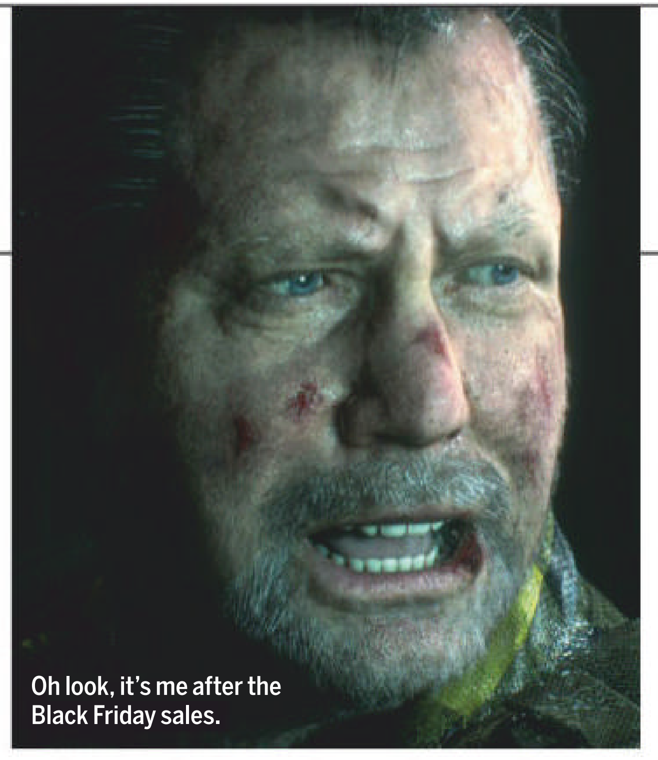
I FINISHED THE *RESIDENT EVIL 2* DEMO CERTAIN I WANT TO PLAY THE FULL GAME

GREATEST HITS

It's quite a tricky game, too. I died a bunch of times playing as Ada, and a few more as Claire when I sprinted away from the Tyrant and straight into a pack of enemies. Strategic saving, via the returning typewriters, is a must, then. This remake offers a greater sense of struggle than the more action-oriented *Resident Evil* games of recent years.

I finished the *Resident Evil 2* demo certain I want to play the full game. '90s nostalgia is on an upswing right now: the old *C&C* games are getting a refresh, *Black Mesa*'s Xen levels are so elaborate they're taking years to make, and *System Shock*'s seemingly been through a rough patch figuring out what should and shouldn't be part of a remake. Capcom seems to have figured it out: keep the strangeness and iconic enemies, smartly use colour to evoke characters and places the player remembers, but change enough that they can still be surprised. I just hope I don't have to spend too much time running away from the Tyrant.

Samuel Roberts



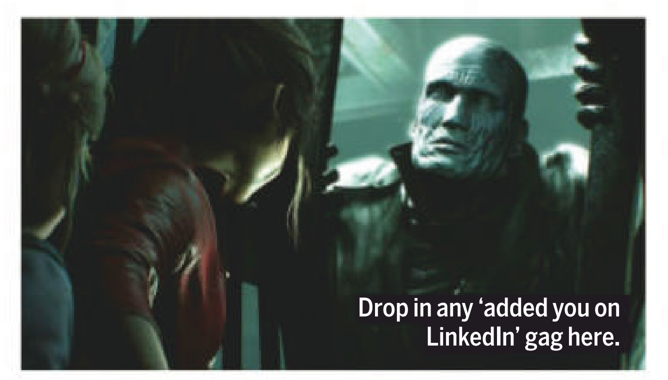
Oh look, it's me after the Black Friday sales.



I forgot to mention this guy in the preview. He's fleshy.





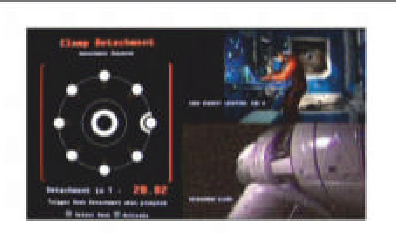
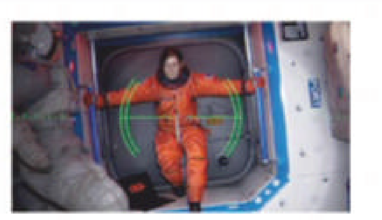


Drop in any 'added you on LinkedIn' gag here.

The cameras make you feel like a voyeur.



Dr. Fisher and SAM have to work together.

NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
2019	No Code	Devolver Digital	www.nocodestudio.com

OBSERVATION

A stylish sci-fi thriller with a unique twist

You've seen rogue AI in science fiction before. HAL from 2001: A Space Odyssey, GlaDOS from *Portal*, SHODAN from *System Shock 2*. It's one of the most reliably terrifying setups for a sci-fi horror story. But what's interesting about *Observation*, a new game from the makers of horror anthology *Stories Untold*, is that you *are* the AI.

You are SAM (Systems Administration and Maintenance) and something terrible has happened aboard the space station you're in control of. Emma Fisher, an astronaut voiced by Kezia Burrows (who played Amanda Ripley in *Alien: Isolation*), is your only human point of contact, at least in the demo I played, and the pair form an uneasy alliance.

The DNA of *Isolation* runs through *Observation*, with many of its small dev team (and a few contractors) having worked on SEGA's horror masterpiece. It feels like a spiritual successor in a way, with the same kind of ominous atmosphere and stylish analogue video degradation. But No Code stresses that this is a thriller, not a slasher in space.

As SAM, a network of cameras dotted around the station are your eyes and ears. You use these to scan documents, devices and so on. Scanning gives information directly, but it also lets you perform actions that help Fisher; opening an airlock, say, or debugging systems or giving damage reports.

This is one of my first jobs, as Fisher tries to determine how much damage the station has taken. I run through a series of tactile, interactive diagnostics and feed the information back to her. When she asks me something, I hover over the appropriate information and squeeze a button to reply in an eerily calm, well-spoken voice. If you give her the wrong information you'll hear her get frustrated, which reinforces the fiction, with SAM acting strangely and being disobedient.

SCREEN BURN

No Code founder Jon McKellan was responsible for many of those wonderfully grimy, lo-fi, distorted interfaces in *Alien: Isolation*, and while *Observation* is more contemporary looking, it still has that hard-edged, functional aesthetic. The station itself is beautifully realised, too, cluttered with detail and things to scan.

It's not completely rooted in reality, though. No Code has taken some liberties with the science, and not just in SAM's hyper-intelligent AI. On a table I notice a sphere-shaped drone, and McKellan tells me that, later in the game, you'll be able to fly this thing around the station. But these are only slight diversions and I love how believable everything is. It reminds me of sci-fi from the '70s, which is an obvious influence on the game.

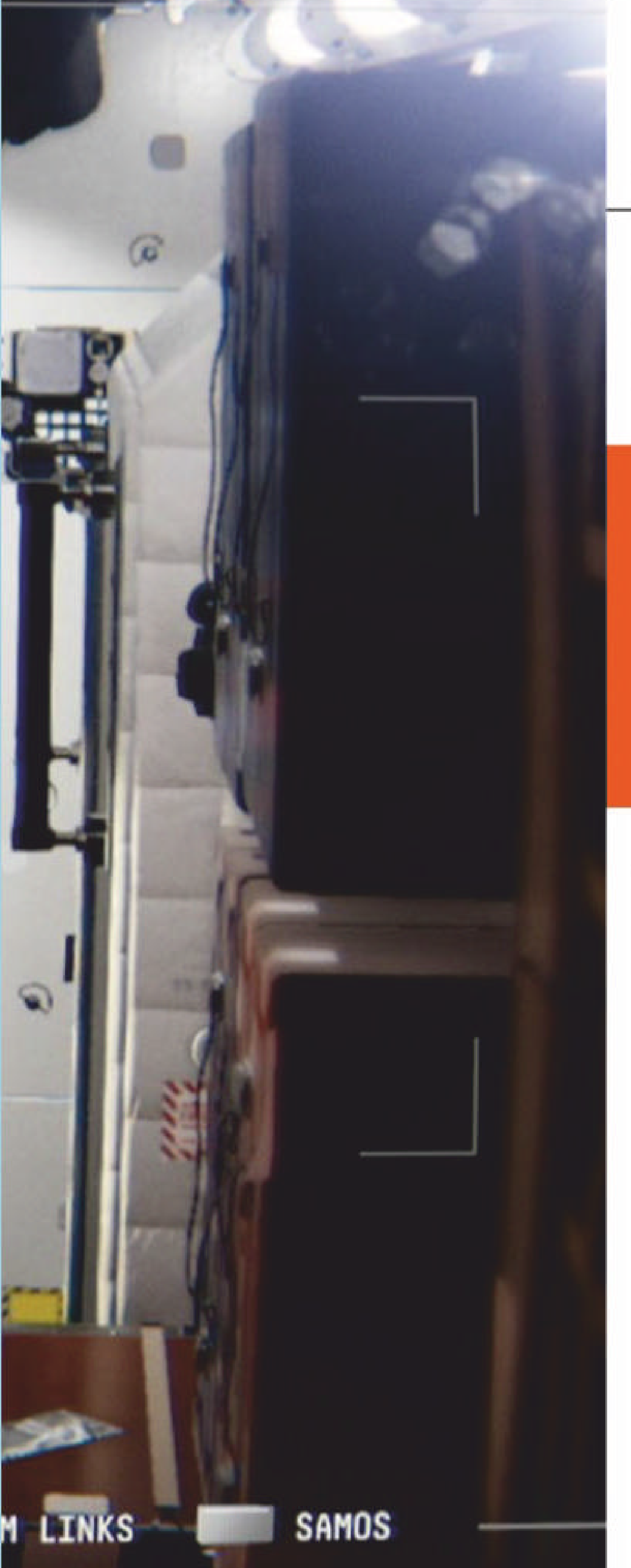
PLAYED IT

But here's where things get creepy. As I'm helping Fisher navigate the station, my feed is interrupted by strange signals, including the words BRING HER. Worse still, at the end of the demo it's revealed that the station has, somehow, drifted from Earth, and is orbiting Jupiter. I could almost feel Fisher's dread when I saw the planet looming in the distance; a palpable sensation of hopelessness and, well, isolation.

It's an intriguing end to the short slice of the first act I got to experience, and I'm immediately won over. I'd happily play a game purely about being an AI and helping an astronaut fix things, but I think *Observation* will get really interesting when this corrupting influence creeps deeper into SAM's systems. McKellan tells me the game gets chaotic later on, so I'm predicting bad things for Dr. Fisher. *Stories Untold* was one of last year's biggest surprises, and I'm glad to see No Code expanding on the concept with this clever twist on a popular sci-fi trope.

Andy Kelly

A NETWORK OF CAMERAS DOTTED AROUND THE STATION ARE YOUR EYES AND EARS





The game is set in the not-so-distant future.

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MAKING WAVES

Ark's developers turn to piracy for their next big project: **ATLAS**.

By Philippa Warr





It is hard to fight a ghost ship while the person in charge of the cannon is playing Do-Re-Mi on the accordion badly. In addition to this wisdom, Studio Wildcard's enormous piratical project, *Atlas*, has also taught me how to make the ocean equivalent of a handbrake turn (slam the rudder in one direction while the sails are only half open), and that friendly fire is definitely enabled.

Atlas is an MMO themed around piracy. Think *Ark* meets *EVE Online* on the high seas. There's a survival element, so you'll need to keep yourself fed, watered, away from dread beasts, at a reasonable temperature and so on. If you're playing versus other players you'll also need to keep yourself safe from their guns and cutlasses. There is also a social, empire building element where players can band together to form companies (like *Ark*'s tribes).

The idea is that these companies will grow and vie for territory and resources. The ability for companies to set laws to govern behaviour in particular ways will arrive in a few months but, from launch, they will be able to set taxes in areas they control. Wildcard wants *Atlas*'s systems to help encourage a mixture of co-op and competition, trade and warfare.

The full feature list is far longer but there's crafting, there's sailing, there's fishing, there are sea shanties, there are boss-type monsters... The mini-boss Wildcard showed me was a hydra which lived on a Mediterranean-looking island and huffed dreadful breath at its attackers. As you might assume, the challenge was to destroy the monster's heads before they regrew, and to destroy the whole monster before it destroyed your crew.

SETTING SAIL

Studio Wildcard cofounder, Jeremy Stieglitz, describes the goal with *Atlas* as: "To make a living, breathing persistent survival world that is one world for all the players and not many copies of the world, and have that world be about the rise and fall of player-run empires, drawing a lot of inspiration from games like *EVE Online*."

Elements of *Atlas* will be familiar to players of *Ark*, but *Atlas* is vastly more ambitious in scope. For starters the game world is around 1,200 times the size of *Ark*'s setting. Wildcard intends that space to be able to support 40,000 concurrent players. Rather than players being divided into myriad servers, each with a copy of the island, they're expected to play together. There are a handful of caveats with that statement, though. NA and Europe will run different servers due to latency limitations, and PvP will be separate from PvE.

A studio demonstration with a dozen or so people means it's hard to assess how the tech will hold up at such a large scale. By the time you read this article, *Atlas* will have dealt with day one interest spikes so the tech's robustness should be easier to assess. Wildcard has also hired-up dedicated infrastructure engineers and ensured the devs can add more area to the in-game play space if it's needed, as well as tapping into their own prior experiences with *Ark*.

THE GAME WORLD IS AROUND 1,200 TIMES THE SIZE OF *ARK*'S SETTING

To get a flavour of how ship battles might play out, PCG's Steven Messner joins me aboard an enormous ship and we set sail with a mixture of game developers and NPCs for our crew. As captain, I take on steering and sails while Lieutenant Steven deals with cannons (and the accordion).

The galleon we are using would represent thousands of hours of effort and experience if we were playing normally. Thus we would (theoretically) be a lot more conservative in battle and less likely to, for example, ram it directly into the other team's sloop instead of turning the boat to use the cannons.

Steering takes a bit of getting used to. A and D turn the rudder and adjust your direction, but holding shift at the same time means those buttons change the direction your sails are facing. I end up alternating between rudder and sails as I try to bring the ship into a position where Steven can take a shot.

With the gun ports open, Steven takes aim, checking the cannonballs' flight path on his screen before firing. Cannonballs are extremely heavy things, so you quickly learn to take into account the enemy ship's speed and course so the ammo makes

MAIN: Making swordfighting feel right has been a priority for Studio Wildcard given the pirate theme.

ABOVE: Playing an accordion well can provide status buffs.



SCALE MODEL

***How big is* Atlas *in relation to* Ark?**

According to Wildcard, *Atlas* is about 1,200 times bigger than the *Ark* island. In this image the blue square is the *Atlas* map and the dot we've zoomed in on is *Ark*.

contact instead of splooshing harmlessly into the water.

Keyboard commands offer varying degrees of control. Free fire mode lets any NPC on a cannon shoot automatically when they find an enemy target and another button acts as a universal 'hold fire' signal. Red alert forces all NPCs to leave their station to attack any enemy who has boarded the ship. Players can also set individual options for their NPCs.

I bring our ship alongside a brigantine, struggling with the fact the wind is against us. The brigantines are the standard big ships, whereas our galleon is more of a cruise liner crossed with a battle station. I hear Steven launch a volley of destruction and wonder if we've defeated the brigantine. We have not. Let's just say that we now know friendly fire is a consideration.

Our ship has picked up a bit of speed so I try to ram our foe. I don't make contact but their closeness means I'm tempted to jump or grapple hook onto the enemy deck to engage in a spot of fisticuffs. I would be massively outnumbered, though, so I stay put.

If I'd managed to board unnoticed I could have tried a bit of stealth killing, taking down as many of their crew as possible without being detected. Super non-stealth is another option, as you can apparently also use a horse to leap from one ship to another and try mowing down the other crew from your saddle.

BACK FROM THE DEAD

Dying doesn't take you out of battle entirely as you can respawn on one of the ship's beds. Levelling up a ship can increase the number of beds it holds, but you'll still need to consider things like cooldowns timers and the fact you can't fast travel your items to a location, just your character. A bug on the build we're playing on means we can't use beds so I end up taking over a dev's character after mine is killed by a cannonball.

I decide to try the fire arrows he has equipped. Arcing them gracefully »

onto the enemy deck is truly satisfying. I'm being targeted, though, so while I aim and shoot, I'm also trying to dodge incoming projectiles so my new character doesn't go the same way as the captain.

We're also taking on water due to the damage sustained in the fight so far. I pull out a repair hammer and try to find the damaged areas. There's a minigame of sorts which lets you repair the ship faster – click to start a repair and again to stop a moving cursor in the highlighted section of a bar. It moves quickly and I run out of metal before I master the system.

I still have my arrows, though, and the enemy ship has started sinking, meaning all we need to do is repel boarders and we've won the fight. I stand on the side of the ship, picking off survivors as they splash towards us. It's all going well until I fire a flaming arrow into our own deck. I walk away, hoping that the hubbub has concealed my error.

The last foe dies! It was a fiery death so I am hopeful that he wandered into my deck conflagration. Alas, he shot his own fire arrow into his own feet. But a victory is a victory and it is their ship at the bottom of the sea waiting to be looted, not ours.

Staying on the PvP server, we also try out a little PvE action. A map piece has washed ashore in a bottle and shows a piece of land with treasure buried at the traditional X.



ON THE MAP

Treasure hunting tips



1. Match the map outline to an island.
2. Set sail!
3. When you reach the island you'll need the map bearer to get you to the treasure spot.
4. You'll need to subdue the Army of the Damned, so don't forget weapons and ammo.
5. Dig up your booty! It gets shared out, so consider thinning the crowd a little...

ABOVE: Land-based mortars defend a fort against the firepower of a galleon.

RIGHT: Clearly this is a halibut.

Finding the treasure involves a cartography challenge where you need to match the shape of the land in the map segment with an island in the game. The map might also be rotated slightly so there's a light visual puzzle element.

Our treasure island is a few minutes away by sloop (a small single-deck boat) but maps requiring further journeys will yield better treasure. It takes us a little while to get going because the dev team want to show us land travel methods like a carriage pulled by bears. I find that I can fire arrows out of the window and into a moose from the safety of the carriage, so we also need to factor a moose fight into our journey time.

Steven is told that ships gradually take damage from being out at sea, and that it's therefore wise to drop anchor every now and again to halt that process, as well as making repairs and stocking up on supplies. I learnt all that in an earlier session, so I drag the dead moose to Steven's feet and then get into the water so I can punch a manta ray. Manta rays are hardier than I thought.

Currently, the ship is sporting PC Gamer logos, but we could change the sails and the rest of the decor, repainting it pixel by pixel. Instead, Steven gets out the accordion. This is also when a ghost ship finds us.

SHIP SHAPE

Ghost ships – known as Ships of the Damned in *Atlas* – are useful as they're a source of NPC crew. If you sink a Ship of the Damned you free



then betray them once the ghost soldiers are down to get a better share of the gold.

I'm playing *Atlas* using a lot of developer shortcuts in order to give me an overview of what's possible beyond the game's first hours. But for new players, what you'll first encounter is a freeport. These are parts of the map where PvP is disabled, even if you're on the PvP server. The idea was to offer a smoother start than *Ark* where players could start learning *Atlas*'s varied systems in relative comfort instead of via instant death or punching a bazillion trees. These freeports are level capped so after about half an hour you'd head out on a basic ship – probably a raft – seeking resources and experience.

This incentivised travel persists throughout the game. Different biomes offer unique resources and creatures and, by extension, different opportunities to trade, or inducements to establish multiple company bases. Claiming more territory and having more company ships out and about will also increase your vision of the map, granting valuable knowledge of what other companies are up to.

Discovery zones also encourage players to wander into new territory. These are similar to *Ark*'s explorer notes, offering story tidbits and so on, but there are far more of them – over a thousand in the early access launch. To reach the highest level in the game, Stieglitz tells me you'll need to find all the discovery zones. That means visiting all the land masses and engaging in difficult journeys.

Claiming an area takes time and your reward is a plot of land only you can build on. Another company can try to take your land and, if you're not in the area, you'll get a notification and must decide whether to try to defend it. If you're in the vicinity, they'll need to take out your players before they can start a counter-claim.

It's hard to gauge how players en masse will engage with all of these systems before the game hits Early Access. That's partly because players have a habit of doing surprising

DIFFERENT BIOMES OFFER UNIQUE RESOURCES AND CREATURES



Aggro whales at your own peril.

the people it was trying to enslave and can recruit them yourself if you need. Cash flow matters for this as, if you don't pay them, they will mutiny (they are freelancers, after all).

Once Steven has finished his accordion solo we use the cannon to blow the ghost ship to pieces and head to the treasure island. The map holder is the only one who can see the exact location of the treasure on screen, so he guides us across the rocks. Soldiers of the Damned guard the treasure chests so we need to take them out before digging up our loot.

Treasure is distributed across all nearby crew so we get a paltry sum for our effort in the end. One solution to the low earnings embraces the spirit of piracy: you team up with others to go on a treasure trip and

things, or finding loopholes that developers never imagined. *EVE Online* is a big source of inspiration for Studio Wildcard, and that game's player-controlled and player-contested nullsec areas are rife with people doing unexpected, brilliant things for and against one another.

UNCHARTED WATERS

Another source of uncertainty is the sheer volume of content and systems both in the game now and on its roadmap. During my visit Stieglitz darts from topic to topic, showing me dragons you can tame for a short period, a cyclops, a vitamin system, skill trees, a World War 2 plane that's part of the game's modding aspirations, a cow at the top of a tower. He emails me later to detail plans for a whole other system of magic tech involving blueprints for airships and submersibles from a now-vanished Golden Age.

There's also an execution gallery where he asks another dev to put his head into a noose as part of a demonstration of a skull collection bounty system. Bounties placed by players on other players are an interesting way of keeping jerks in check, but execution stations combined with an inventive and large playerbase make me anxious as to what other uses they might be put.

Stieglitz talks at breakneck speed and without pause, so concepts from the present, the next few months and the far future start to rub up against each other. Generally they occupy a spectrum which, for me, runs from, "Sure," to, "I'm sorry, what?"

For example, character aging will be purely cosmetic at launch (sure). After a while it will become a game system, gradually applying buffs and debuffs to simulate the effects of time and requiring a player to either find a fountain of youth or risk permadeath after a few months (yup, I'm still following). And then we're suddenly talking about a multigenerational character system involving mating with other players in order to create babies and then raising the babies to the age of 20 at which point you would be able to body swap into them and stave off death by becoming your own progeny (I… have so many questions).

The team has benchmarks and touchstones it wants to hit along the game's two-year-or-so path to a 1.0 launch, but alongside that the devs will be checking in on what players like or dislike in order to shape the experience. I mean, *Ark* wasn't supposed to be creature-centric and that became its USP after players fell in love with it.





TOP: Any ships sunk in battle turn into lootable wrecks.

Learning from *Ark* – particularly mistakes made with *Ark* – will be important for Wildcard. The older game didn't struggle for sales, but it did have a volatile Early Access journey. Particular flashpoints during this period were the launch of paid DLC while *Ark* was still in Early Access, and an abrupt doubling in price at the tail end of Early Access to match retail preorder.

This time, however, Wildcard intends to communicate pricing information well in advance. For example, Stieglitz makes it clear that although the game will launch at $30 for Early Access it is ultimately intended to be a $60 prospect. He notes that paid DLC is very unlikely given the way the game works; in *Atlas*, islands popping into existence that not everyone can access would be disruptive.

ON THE MONEY

Given the persistent nature of the game and the lure of showing off a fancy pirate outfit to an audience of

ASSAIL HYDRA

What you need to know about this miniboss



Each head huffs out a different type of damaging breath:

- **FIRE:** this breath lights enemies on fire.
- **LIGHTNING:** a beam that stuns enemies.
- **GAS:** a projectile whose area-of-effect drains stamina and health.
- **DARKNESS:** this projectile's darkness AoE reduces vision and outgoing damage. It can also spook tamed critters.
- **COLD:** breath that encases enemies in ice, slowing them to a crawl.

Only the heads are vulnerable to damage, so don't waste your time attacking the body. All five must be destroyed if you want the kill. And if you take too long, destroyed heads will grow back.

Kill mythical beasties to acquire magical artefacts.

"LIKE ANY EARLY ACCESS GAME, IT'S GOING TO BE ITERATIVE"



(potentially) tens of thousands, Stieglitz expects monetisation in *Atlas* to centre on cosmetic microtransactions. At the moment these are likely to turn up before the game leaves Early Access – maybe around the six-to-12 month mark depending on how solid the game's footing is at that point.

Ongoing performance issues in *Ark* were a repeated grumble for me and other players, so I ask about *Atlas*'s optimisation. According to Wildcard, *Atlas* uses a newer version of the Unreal Engine, meaning that it takes advantage of performance improvements Epic has made.

"We have better streaming methods," adds Stieglitz. "There's not as much being pushed onto the client at one time. Partially the nature of the world splits it up better and then also the newer code we're using runs faster and we've learned some of the dials we can adjust on lower-end systems." Thus *Atlas should* run better at Early Access launch than *Ark* does right now and Studio Wildcard will then continue to work on improvements.

Stieglitz hopes that *Atlas* will marry the player-built elements of *EVE Online*, and some of that game's economic aspects, with a moment-to-moment survival experience and a compelling sailing system. "If this game works, there hopefully won't be a need for another survival game," he says, "because it should, in theory, be able to do over time just about anything you could ever want from a first-person grounded survival game."

It's an ambitious aim, so he goes on to add, "Obviously not everything anybody could ever want would be there day one. Like any Early Access game, it's going to be iterative. We'll be seeing where players want to go. Do they want more crazy PvP mechanics, do they want more empire-building systems, do they want more sailing systems to increase realism there, or do they want more quests and narrative content? If they want all those things, hopefully we can do all of those things." ■

THE

PC GAMER

GAME OF THE YEAR

AWARDS

2018

Celebrating another great year of PC gaming

PERSONAL PICK

Evan Lahti

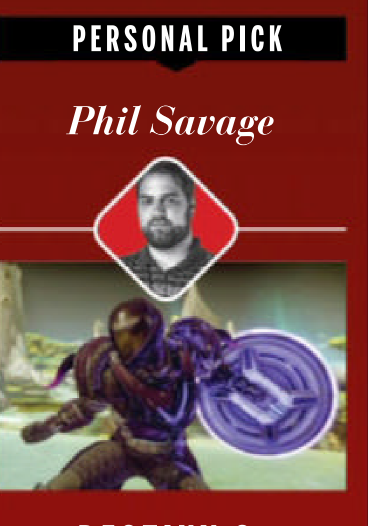


BATTLETECH

Just like the other great, recent turn-based strategy campaigns, failure and success mix together in *BattleTech*. As you pilot mechs in turn-based combat, you might ace your objectives, but lose a missile launcher or gauss rifle. Earning salvage might come at the cost of the life of a pilot. Combat is intricate, with segmented armour, heat, ammo, movement speed and the location of sensitive areas factoring into each shot.

PERSONAL PICK

Phil Savage



DESTINY 2: FORSAKEN

After a difficult launch year, *Forsaken* came in and fixed almost all of *Destiny 2*'s litany of issues. This combined expansion and overhaul is so packed with activities that I have barely had chance to scratch the surface of its mysterious endgame zone. Instead, I've been playing Gambit, a frantic murder race between two teams of players that tasks you with screwing over your opponents more than they can screw you.



RETURN OF THE OBRA DINN

Samuel: Like *Her Story*, a perfect detective game because it leaves enough space for you to work it out—making you feel like a genius when you figure out the name of one character, then like a dunderhead when you're utterly stumped.

Andy: *Return of the Obra Dinn* could only exist as a videogame, and I always find that exciting. While steeped in the tropes of nautical fiction and whodunits, it's something unique, forcing you to engage with the story, world and mystery on a deep level. In those long periods where I couldn't find the right clue to progress, I almost gave up. But then something would always click, toppling a domino chain of revelations in my mind, making me feel like the smartest detective in the world. This is one of the most satisfying puzzle games on PC, largely because it refuses to hold your hand at any point. It trusts you to do it yourself, and is massively rewarding as a result.

Pip: Props for the use of 'dunderhead', Sam. It's spot on with this game.

ONE OF THE MOST SATISFYING PUZZLE GAMES ON PC

I think the thing I admire the most here is that *Obra Dinn* seems designed in such a way that epiphanies actually happen after you've been stumped a while. I'm not sure quite what it's doing on a mechanical or design level to prompt that, but so many puzzle games have moments when you're stuck and that stuck-ness never seems to shift. But everyone I have chatted to about *Obra Dinn* seems to have been able to hit a wall and then, crucially, find a moment of inspiration that gets them through it. It's a joy to work through.

Phil: The difficulty ratings help a lot with that. Your job is to discover the identity of everybody on board an ill-fated voyage, and to work out how they died, using a notebook and a magical timepiece that lets you view the moment of their demise. Each picture in the notebook has a rough difficulty rating. This stopped me from banging my head against puzzles I wasn't ready to solve. Instead, I stored snippets of information, ready for the time I was ready to unpick the big mysteries. ■





FORZA HORIZON 4

Andy: I can't enjoy driving games that aren't *Forza* anymore. The handling has a note-perfect balance of weight, power and responsiveness, and in the *Horizon* series we get a satisfyingly streamlined take on that driving model. The UK is an inspired choice for a setting, particularly the winding mountain roads of the Scottish Highlands. Aside from everything else, it's the feel of the driving that I love in *Horizon 4*, whether you're carving up a dirt track or screaming along a stretch of motorway.

Phil: 'Racing' may not be the most accurate award, but 'Best Having a Fun Time in a Variety of Cars Game' was too long of a title. *Forza Horizon 4 is* a great racing game – offering just enough realism to give its arcade handling a proper sense of heft and presence – but its real success is ensuring each of its many activities is reliably entertaining. Maybe that's an off-road race against AI drivatars, or a cooperative Forzathon challenge to drive very fast down a specific road. Maybe it's hunting down rare cars in abandoned barns or smashing billboards for experience points. And maybe it's skidding around a big field, building your skill chain to unlock perks for your car that let you earn even bigger, more ridiculous skill chains. That handling system is so expertly tuned that, whatever you decide to do, and whatever car you drive, you're going to have a good time.

Fraser: I haven't driven since 2002 and generally think that cars kinda suck. With *Forza Horizon 4*, I get it now. I had a similar revelation with *Burnout Paradise*, but I drifted away and stopped caring again. Now I can't get enough of cars. Dumb cars, mostly. I found a rubbish little thing that could barely hit 40, tuned it up and now can't drive it anywhere without doing donuts up and down the road or smashing into walls. It's uncontrollable and also my favourite car. And what a treat it is to careen through Edinburgh! I lived there for 11 years, and it's eerie how good the digital facsimile looks.

Phil: I do still think it's ridiculous that you're just handed a free house within the first hour of play. That is not how Britain works. ■





FROSTPUNK

Chris: At first it appears to be a beautiful steampunk building management game with survival elements. Construct a city around a coal-powered generator in a frozen crater, and keep your citizens warm, fed and healthy. But it's the simulation of a desperate and fickle society, as well as your role as a leader, that makes *Frostpunk* such a challenging and unforgettable experience. You're called on to pass laws, and each law comes with a compromise, the significance of which isn't entirely apparent until further down the line.

When hungry citizens begin stealing food from your storehouse, it feels natural to begin a neighbourhood watch program to keep an eye on everyone. But with its first few decisions *Frostpunk* is just grooming you, testing your morals, seeing how far you'll go in the name of saving lives. Later laws can allow you to build guard towers, form a militia, and eventually you might be spreading propaganda and even having your band of enforcers perform executions, all in the name of keeping your city safe and orderly, or at least convincing your citizens that you are in control. By the end of the game you may wind up feeling that you've only done what was necessary to save lives, but at the same time you may feel more like a monster than a saviour.

Fraser: All of the miserable, freezing people huddled around the city's few heat sources thought that the perpetual winter was going to be the end of them, but actually it was me. I set aside empathy for a practical attitude, which is a nice way of saying that I made kids work in the mines. *Frostpunk*'s a strange survival management game in that surviving might not really be worth it, at least not for your poor citizens. Where other survival games use resource scarcity to push players to take risks and venture out further from the base, *Frostpunk* uses it to force players to make decisions about what kind of society they're building at the end of the world. And mine was just awful. Survival still ultimately comes down to numbers, but the methods used to maintain those things are vastly more interesting than 'build this thing'. ■

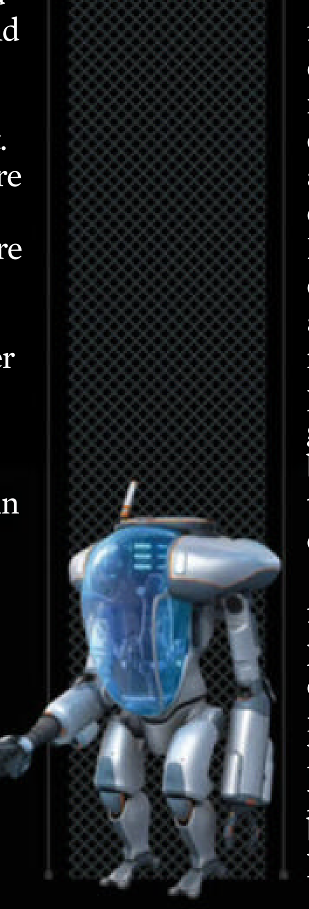
PC GAMER
BEST SURVIVAL
2018

SUBNAUTICA

Andy: I don't get on with a lot of survival games because, outside of staying alive, there isn't much to do. But *Subnautica*'s beautiful, mysterious alien ocean is absolutely heaving with interesting, hand-crafted details to discover. When you find a strange island or a wrecked ship, you know there'll be an interesting story attached to it, and maybe something that can be scavenged to help you out. And while many survival sims force you to endure hours of tedious busywork, the material requirements for building things in *Subnautica* are refreshingly generous, letting you actually get on with enjoying the game.

Pip: *Subnautica* is the only survival game I've ever loved. The underwater setting is absolutely gorgeous, and I wanted to see what was in every cave. Each new biome was a source of utter delight as well as tension especially when I was in the depths of the ocean, battling oxygen limitations and deep sea pressure (and terrifying creatures) in my quest for resources.

As well as the intriguing story, there is plenty of scope for setting your own tasks. Mine included setting up a multistorey base on the lip of a thermal vent for maximum Bond villainy, and immediately undermining that aesthetic by curating a lovely underwater garden just outside it.



Steven: I'm with Andy on this one: survival games bore me to tears. But *Subnautica* succeeds on the sheer splendour (and terror) of its open sea. I've never felt such a palpable sense of dread as when I would venture into some uncharted part of the ocean where any number of aquatic horrors could get me. My first encounter with a Leviathan left me so shaken I put down the game for days, but the thing that kept me coming back was the story.

Subnautica displays a rare feat of storytelling in the way pivotal plot moments happen completely independent of your involvement in them. Each of us had a wildly different perspective on an early plot beat, and that wouldn't have happened if *Subnautica* was the kind of game that had to wrest control away from the player to make sure they noticed every detail. Like many of its ocean creatures, *Subnautica* is a game that feels like it's indifferent to me as the player, and that makes me all the more interested in puzzling its story out.

SUBNAUTICA IS THE ONLY SURVIVAL GAME I'VE EVER LOVED

Pip: Indifference is actually a really good way of putting it. I played a lot of *Subnautica* in super Early Access and was worried that adding the story in would dramatically change the feel of the game. By not rigidly controlling how you receive that story, *Subnautica* manages to make the player relevant to the world without spoiling the sense that you're stranded in an ocean which both dwarfs you and is entirely indifferent to your survival. ■



YAKUZA 0

Phil: *Yakuza 0* is a hard game to summarise. There's the serious story about a young gangster framed for murder. There are the absurd sidequests that parody everything from toilet graffiti to Michael Jackson. There are the teeming neon streets, the arcade cabinets, the pocket racing, the karaoke, the cabaret club, the chicken who can manage your real estate business, and the endless supply of thugs desperate to meet your fists and feet. There's a lot going on, and all of it is designed to evoke a specific time and place: the over-the-top excess of '80s Japan.

The setting doesn't just come through in the architecture, the furniture or the clothes that NPCs wear, but is also an integral part of every system. Money is earned and spent easily. It bursts out of enemies when you defeat them, and, when you need to upgrade your fighting skills, you do so by *literally* investing money in yourself – hundreds of millions of yen for the best upgrades. There's a satirical edge to its humour, too, to the point that – in one of its substories – you drunkenly suggest the tax policy that would go on cause Japan's bubble to collapse, leading to a 'Lost Decade' of economic stagnation. From the story about what it means to be a gangster in a world of greed and excess, to the aesthetic, the design and even the absurdly over-the-top humour, every element of *Yakuza 0* feeds back into its setting.

Andy: This is my first serious foray into the *Yakuza* series, and those two chunks of city are a joy to explore. I've visited enough western cities in PC games, so it's nice to experience somewhere on the other side of the planet, and rendered with such a keen eye for detail. They might not have the fidelity of somewhere like Los Santos, but Kamurocho and Sotenbori are just as immersive. You can almost feel the grime as you walk the streets in your shiny '80s suit.

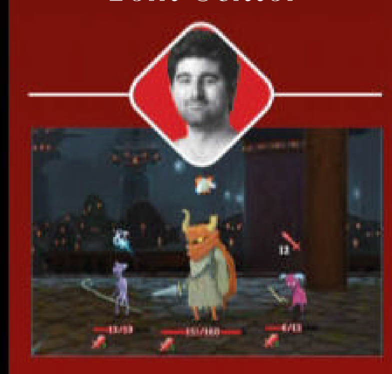
I'VE NEVER FELT MORE BROADLY ATTACKED BY MINIGAMES

Samuel: I've never felt more broadly attacked by minigames than I have playing *Yakuza 0*. It doesn't ask me to spend more time in its world so much as insist on it. And that's how I lost two hours in the batting cage, and another hour playing *Space Harrier* in the arcade, a game I only ever play inside other SEGA games. This game is weird and wonderful. I'm delighted it's on PC, and that when you beat people up, money falls out of them. *Computer games.* ■



PERSONAL PICK

Tom Senior

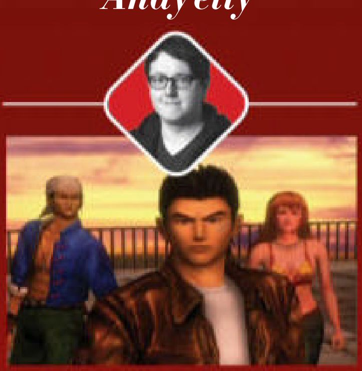


SLAY THE SPIRE

A clever deckbuilding roguelike hybrid with terrific card design. Each of the three characters has a card set that you collect, one by one, as you defeat enemies on your quest up the spire. I love zapping everyone with the robotic Defect character, and I love stacking strength on the close-combat Ironclad to deal stupid damage to bosses. *Slay the Spire* was on the cusp of a full release at the time of writing, but I've been playing it all year and it's already brilliant.

PERSONAL PICK

Andyelly



SHENMUE I & II

While a remastered version of the martial arts life sim would've been cool, I'm happy with how this retains its distinctive aesthetic while adding a few subtle upgrades. Yokosuka is one of my favourite videogame worlds, and I'm devastated every time I have to say goodbye to my pals and head to Hong Kong for *Shenmue II*. As a fan of the series, having both of these classic games easily accessible and playable on a modern PC is priceless.

PERSONAL PICK

Philippa Warr



MEGAQUARIUM

This was a good year for park management games, but the standout for me was *Megaquarium*. Developed by Tim Wicksteed of *Big Pharma* fame, *Megaquarium* tasks you with building up an aquatic attraction, balancing the needs of your fish with the desires of your visitors. Once you've got your aquarium up and running you can while away hours researching new tech and new species, making your setup more efficient, or pursuing your own passion project.

PERSONAL PICK

Wes Fenlon



YOKU'S ISLAND EXPRESS

The most relaxing game I played this year was also the one with the strangest premise: a Metroidvania-styled platformer, but pinball. Its tropical island is an elaborate series of pinball tables, which you bounce through at a chill pace as the island's new mailman. There's no dying or failure, really, just bouncing your way through a cleverly designed world that becomes more and more interconnected as you go.



MONSTER HUNTER: WORLD

Tom: *Monster Hunter: World* is an odd game if you've never played it before. The controls feel dumb and the crafting is complicated, and you have to pay cats to make food for you before every hunt.

Once it clicks, it's incredible. The controls are unusual because they have to support 14 different weapon types. It can take a while to wind up big hits, which means you have to learn how monsters fight. It helps that these are some of the best enemies you'll fight in any game. From the much-victimised jagras to total bastards like odogaron, they all have their own quirks. To master *Monster Hunter* you have to learn their habits. The electric flying squirrel tobi-kadachi leaps up into the trees in forest areas. Rathalos can shatter the rocky dam near its nest if you goad it correctly. Every fight feels dynamic and important.

Phil: I love the pace of each hunt. The determined purpose as you set off to find your quarry. The quiet contemplation as you check your equipment and apply your powders. The frenzied panic as you dodge an enraged beast's attack. The hurried retreat as other, more powerful monsters wade into the fray. The sombre celebration as your target collapses, letting you carve off a pelt that will finally let you craft a new set of trousers.

Wes: It's staggering how much variety there is in *Monster Hunter*, and how deep it goes in so many areas. You repeating hunts over and over again could be called a grind, but it never feels that way – I'm always getting parts I can use to build some new armour or craft a lance that does lightning damage or crits like crazy. Then if I swap weapons, my role in the hunt changes. With a pair of dual blades I'm a tail-severing machine, but with a hammer I'm better at stunning dinos by clobbering them in the face.

THESE ARE SOME OF THE BEST ENEMIES YOU'LL FIGHT

Pip: I thought I was enjoying *Monster Hunter: World* and then it wanted me to kill a pukei-pukei. NEVER! Pukei-pukei manages to be both the most extra and the most derpy of the monsters. It's all rainbow feathers and tongue and eyes, and why can't I be its friend instead? ■







ASSASSIN'S CREED ODYSSEY

Tom: At one point Kassandra shoved an important quest item up a goat's bottom to annoy an NPC. I was sold instantly. Ubisoft's staggering, detailed rendition of Greece and its ancient islands was also quite nice to explore.

Samuel: I thought *Assassin's Creed* was the low point of modern blockbusters about four or so years ago: oversimplified combat, platforming and an icon-strewn map that won't leave you the hell alone. Icon overload is still a bit of a problem, but as of *Origins*, *Assassin's Creed* has become a series that's great at exploration – Greece is such a different location from Egypt that the experience of uncovering it feels totally different. It improves combat over *Origins*, too, and the addition of RPG-like choices (in a *Dragon Age*-y fashion), made it one of my favourite 2018 time sinks. I just wish Ubisoft didn't sell experience boosters alongside it.

Andy: *Odyssey*'s clever Exploration Mode is honestly a game-changer when it comes to navigation. Rather than point a big, flashing quest marker at where you have to go, the game gives you a geographical clue to where it is instead. North of this town, say, or west of this landmark. And while it's usually easy to find the correct location, that little bit of extra legwork, forcing you to engage with your surroundings, goes a long way. You feel like you're actually exploring, and experiencing, Greece and its islands, rather than just blindly going where the developer tells you to. And the sidequests are the best they've ever been in the series, making spending time in this historic world actually worthwhile.

Steven: What's really crazy is how much *Odyssey* has in store for players after the main story wraps up. Kassandra's journey to reunite her family is often a great one, but the best parts all happen after, when you get to set out and hunt mythological creatures, uncover your true destiny, and dive headlong into the bizarre metanarrative that's always been central to *Assassin's Creed*. It feels like a whole second game bolted on at the end, and it's the first time I've ever felt compelled to actually 100% one of these damn games. ■

VERMINTIDE II

Tom: There is some seriously excellent hitting in this game. When you whack a rat in the head with a hammer it blows up and the poor creature stumbles around a bit before falling over dead. Top hitting.

Vermintide II is also a great example of how sequels can realise the intentions of the original game. With a fanbase and more resources, Fatshark added a more engaging loot system, new environments and loads more enemies to clonk with hammers. I've always thought that more games should copy the co-op setup established by *Left 4 Dead*, but *Vermintide* carves out its own niche with a strong melee focus and a surprisingly good realisation of the old world of Warhammer. I love it for that, but even if you're not a fan, anyone can enjoy mashing up hordes with some mates.

Samuel: I found *Vermintide II* too hard at launch, and I still don't quite get the loot system, but it's a much better version of what the first game was going for. Like Tom says, the combat is so much better than the original, to the point where I switched characters just so I had the opportunity to batter things more frequently.

Wes: I had fun with the first *Vermintide*, but it didn't have quite the variety to keep me coming back. *Vermintide II* does not have that problem. Sometimes I'm chopping giant ratmen in half, and sometimes I'm decapitating raving Chaos lunatics. That's all the variety I need! The subclasses and levelling system for each character are also great: I mainly played as grumbly dwarf Bardin Goreksson, but by switching a few abilities I could be a hyper-aggressive dual axe-wielding Slayer or a tanky shield-bearing Ironbreaker.

Phil: It's been said already, but damn, *Vermintide II* is some *good* hitting. I play Kerillian, meaning the majority of my time each mission is spent manically clicking the mouse, watching her spinning daggers slice through an actual horde of rats. There's a weighty presence to your foes that makes slicing, dicing and bludgeoning them feel incredibly satisfying. It might offer some of the most enjoyable melee combat in PC gaming. That it's also a great way to spend time with friends just makes it all the better. ■



HITMAN 2

Samuel: It makes me really happy that IO Interactive is still making murder puzzles on this scale, with this much detail, in 2018. *Hitman 2*'s levels are best-in-class sandboxes, and it can take you hours to unlock their full potential. While this game's selection is a little conventional by the series' standards, they're still tons of fun. Plus you can download its predecessor's levels inside the new game. Warring with Phil over the leaderboards has been a highlight of 2018 for me. How the hell did he do Hawke's Bay in four minutes? Unbelievable.

Phil: The trick, Sam, is to attempt things that you're almost certain won't work, because sometimes you get lucky and look really clever. (Luckily the leaderboards don't track all the times it went very, very wrong.) Our assassination competition *has* done wonders for my appreciation of *Hitman 2*, though, and I already liked the game a lot. Many of the safest, most reliable ways to kill your target are also relatively slow, and so competing for high scores has forced me to reassess levels that I thought I knew incredibly well – finding new routes and opportunities, and seizing them as stealthily and efficiently as possible. And when I'm tired of shaving seconds off my times, I still enjoy just being in the environments, trying to figure out the many unique and often quite funny ways you can kill each target. It's like Groundhog Day as a stealth puzzler, where one attempt you'll be sublime, and the next you'll be ridiculous – with no consequences beyond a great (or terrible) score at the end.

I'm glad that IO has brought back elusive targets, too. Having just one attempt to take down your target adds an extra level of tension that's missing from the missions proper. Even actions that I've performed hundreds of times before, on levels that I know incredibly well, feel risky and dangerous, because if I mess up, there's no going back.

IT'S LIKE GROUNDHOG DAY AS A STEALTH PUZZLER

Andy: This isn't much of a leap from the 2016 reboot, and I don't care. All I wanted was some more great levels, and maybe a couple of tweaks and that's exactly what IO delivered. A few of these elaborate, detailed puzzle boxes are among the best in the series, and finding ways to game the systems to kill your targets is as compelling as ever.

Fraser: I've only played a couple of *Hitman 2*'s new missions, technically, and it's still my favourite stealth game of 2018. See, all of the previous *Hitman* levels have been remastered with the *Hitman 2* bells and whistles, so I've been playing through the whole thing mixing up the old with the new. It's been great, giving me a chance to take paths I'd ignored before, all with the benefit of these new additions. Now I'm delving into the new missions, and I'm not even remotely burned out. ■



FORTNITE

James: I have played more *Fortnite* than any other game this year, more than any other multiplayer game in my life, and I've yet to win more than three solo games. That's an endorsement, not a cry for help. While the building system is difficult to learn (so was WASD, once), stumbling into basic competence is made palatable by a playful mixture of weapons, tools and vehicles. I regularly see duos propel themselves hundreds of feet into the sky on the back of an ATV, sniping players in an accidental homage to the best bits of *Halo* and *Tribes*. I nabbed a second place spot by consuming stones that turned me invisible, stalking players in their hidey-holes before surprising them with a shotgun hello. And yeah, I've won a few infamous build battles. With so much going on, *Fortnite* might seem inscrutible. Helping get you over that hump is the fact that winning is rarely the reward. As long as I improve my building or pull off a wacky play with the grappling hook, deployable transdimensional rift, portable fortress, balloon, jetpack, shockwave grenade, or whatever volatile gadget Epic introduced that week, I'm probably having a good time.

And yet, so much of discussion around *Fortnite* orbits its face. Strip away the dances, the skins, the streamers, the brash teens, and what's left is just a creative, surprising, hilarious, and totally unique shooter. It is a near-perfect PC game. And it's free.

Wes: I'm terrible at *Fortnite*, but that hasn't stopped me from having fun with it. The building system and bright world bring me back to playing with toys as a kid – it's the rare multiplayer game where the more imaginative and creative you are, the better. Mostly, though, I've enjoyed watching *Fortnite* evolve. So far, at least, Epic has barely cared about catering to the competitive scene, while the rest of the world is desperate to launch the next big esport. Think about how amazing that is: the biggest game in the world is being designed with a cavalier spaghetti on the wall mentality.

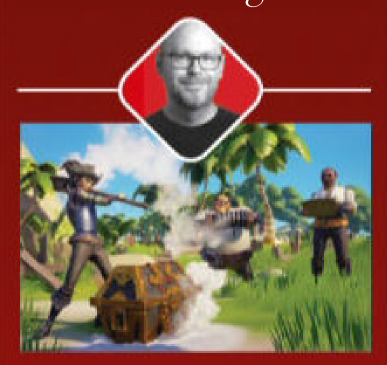
IT IS A NEAR-PERFECT PC GAME. AND IT'S FREE

Jarred: I rarely make it into the final ten when I play, but the limited-time modes are a great diversion. They're chaotic and sometimes don't work, but the 50v50 fort battles were amazing. I probably caused more harm than good, but my team won about half the time. Law of averages is on my side in that sort of competition. ■



PERSONAL PICK

Chris Livingston

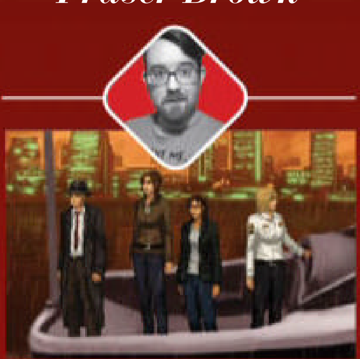


SEA OF THIEVES

I only play a few hours a month, but *Sea of Thieves* has become my favourite game world to spend time in. It's a gorgeous place that can waver between exciting, high-pitched naval battles with other players and relaxing goofing off with friends. The lack of RPG elements makes it a bit shallow, but it's refreshing that I won't find myself outmatched by someone who's grinded hundreds of hours. The only skills in *Sea of Thieves* are the ones you bring with you.

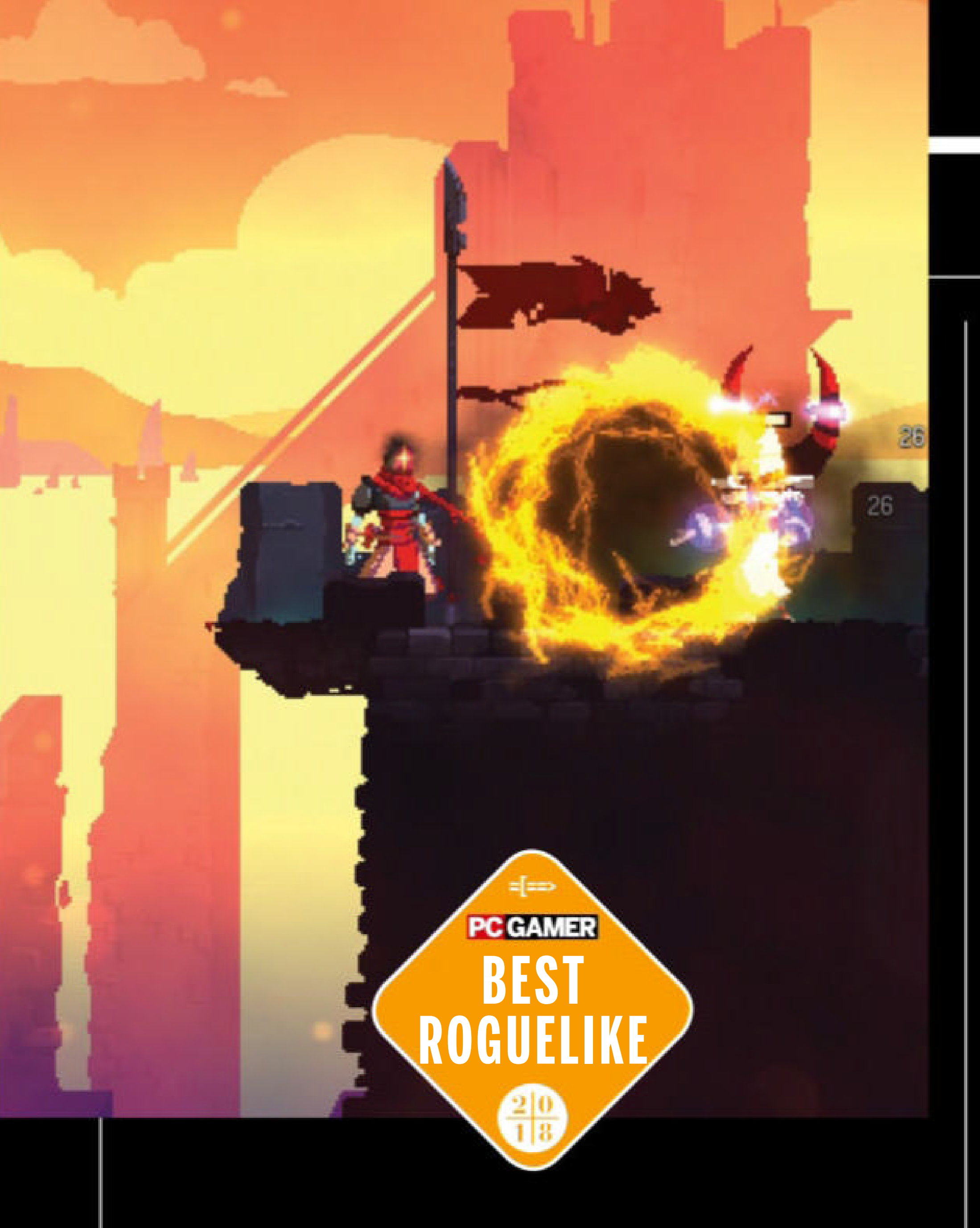
PERSONAL PICK

Fraser Brown



UNAVOWED

This year, one of the best point-and-clicks ever made was conjured into existence. *Unavowed* leaves you picking up the pieces after you were possessed by a demon, kicking off the strongest story Dave Gilbert's written. It's an empathetic yarn full of complicated, believable characters. The world they inhabit is just as fascinating and well realised, with pagan shrines hiding in New York basements and djinn catching a ride on the subway.





DEAD CELLS

★ **Phil:** I'm not usually a fan of roguelikes that demand I spend time unlocking persistent skills to progress. I prefer the *Spelunky* method, where I don't *technically* need anything to complete the game, but will still throw myself against it hundreds of times. If I'm going to die in roguelike, I prefer it be because I screwed up, not because I haven't yet unlocked the upgrades I need.

Despite this, I love *Dead Cells*, in large part because its combat is so good. It's satisfyingly technical, forcing you to learn attack patterns and special abilities. And executing the perfectly timed strikes and dodges required to efficiently and safely progress remains fun, even after tens of hours. Its weapons keep things interesting, too, with lots of interesting quirks designed to tempt you away from your preferred loadout. Temptation, and the risks and rewards that come with it, are the key to any good roguelike.

Steven: How does another 2D Metroidvania roguelike even make it onto one of these lists in 2018? That's the kind of cynicism I brought to *Dead Cells* when I first started playing it – and it only took a few minutes to see why everyone won't shut up about this game. *Dead Cells* is just too damn good. The combat is great, sure, but what I really dig is the sense of exploration and how *Dead Cells* forces players to juggle survival, exploration and speed all at the same time. Some of the most powerful items are behind doors that will close after a certain amount of time has passed, so once I discovered one I'd dedicate a whole run just to getting there as fast as possible to grab the item before the door slammed shut. Those runs are my favourite, because I couldn't afford to be careful and slow. In those frantic sprints, there was no room for error, and that was completely thrilling.

Bo: When I started playing *Dead Cells*, I would die in seconds. Then my skills improved, and runs would last minutes. Then I learned enemy strategies, and unlocked some useful gear. Now I barrel through early levels, taking on ever more challenging hordes. An hour deep into a run, death is agony but it still never stops me wanting to start again. ■

PILLARS OF ETERNITY II: DEADFIRE

★ **Andy:** In terms of writing, quest design, and worldbuilding, Obsidian is at the top of its game in *Deadfire*. This nautical sequel continues the story established in the first *Pillars*, but is standalone enough that you can dive into it without any prior knowledge. And what a grand adventure it is, making you a ship captain and letting you sail the deadly, alluring waters of the tropical Deadfire Archipelago. For the most part this is a classic Infinity Engine-style RPG, with reams of vivid, descriptive text, enchanted items with lengthy descriptions, dungeon diving and magical beasts. But being able to crew and maintain a ship and sail between islands, gives it a compelling twist.

The Deadfire Archipelago is a beguiling, strange, alien place, and uncovering its well-realised culture, politics and history makes spending time there a delight. There are dozens of rounded, interesting characters to meet on your journey, quests that start small then spiral into something wild and unexpected, and a whole lot of deep, tactical combat for you to indulge in.

Steven: What I love the most about *Deadfire* isn't the excellent story, characters and writing, but how smart Obsidian has gotten at being able to distil all that information in a way that doesn't require me keep a lore wiki open in the background. *Pillars of Eternity* was an intimidating game to get into, in part because it front-loaded every bit of dialogue with proper nouns and slang that I didn't understand. *Deadfire* does the same, but tooltips give you useful bits of context when you need them.

Fraser: *Pillars of Eternity* was a fantastic CRPG that managed to be a lot more than nostalgia fodder, but it still stayed within the lines, with the Infinity Engine games serving as a cornerstone. *Deadfire* is bolder. Sure, the systems are familiar, but the setting, tone and broad roleplaying options help it escape the shadow of *Baldur's Gate II* and the rest of the gang. It's a freewheeling adventure, a sometimes unsettling story about colonialism, and even when it delves into the familiar realm of gods and prophecy, it always leaves the door open to something unexpected. ■

INTO THE BREACH

Tom: *Into The Breach* shows that you can create tactical intrigue without force-feeding the player a 100-page manual. This game gives you an eight-by-eight grid, a few enemy types, squads of cool mechs with different attacks and... that's it. It even tells you exactly what's going to happen next turn, and it's still a fascinating tactics game that you can enjoy in snackable short sessions. It's elegantly designed and accessible enough to appeal to people that might not think of themselves as strategy gamers. Battles feel like emergent puzzles rather than serious tests of martial skill, but it's still quite hard, particularly when parts of the arena start flooding, or collapsing away completely.

Evan: When you unlock a new set of mechs it feels like ripping open a new set of Pacific Rim action figures, a trio of robots that form a unique fighting style. The Flame Behemoths torch everything. The Rusting Hulks use smoke to disable enemies. The Steel Judoka are all about setting up sweet suplex combos. And upgrading these bots almost always feels like a tough choice between survivability or movement, between attack power and utility. *Into the Breach*'s dedication to less-is-more design makes this possible.

Samuel: Like *FTL*, *Into The Breach* is a fantastic modern form of strategy game that's engaging and easy to pick up without being too complicated. Plus you can play it in tiny chunks. That's exactly the kind of strategy game I want in 2018.

Wes: One of *Into the Breach*'s small, brilliant decisions was putting the focus of each mission on saving civilians, rather than your own mechs. It has me doing scary maths every turn: should I put one of my units in the line of fire to take a hit? If they die, losing some of the special abilities they've accrued by levelling up, is that worth the trade-off of protecting the energy meter? A single civilian loss can feel devastating, but this framing sets the tone for the whole game. It's about surviving, not killing every enemy unit you can see, and lasting long enough for the Vek to retreat had me pumping my fists like it was a massive victory.

INTO THE BREACH IS A FANTASTIC MODERN FORM OF STRATEGY GAME

Phil: That you can see exactly what your enemy is going to do before they take their turn is everything. There are no surprises, just precise, accurate information detailing exactly how screwed you currently are. It's great if you can finish a turn without any buildings being destroyed, but it's rarely enough. You also have to avoid taking too much damage yourself and, if you ever want to upgrade your squad, complete a bonus objective too. But, because you know how and where your enemy is going to attack, you have a chance to turn things to your advantage. To push a bug here into the path of another enemy's attack. To deliberately take damage in order to save a valuable building. To not kill an enemy, but instead move them in such a way that they'll block reinforcements on the next turn. *Into the Breach* is constantly putting you in impossible-seeming situations, but also gives you the time, information and tools to think your way back out. ■



Unforgettable REALMS

Why, 20 years later, we still love the *Baldur's Gate* series.







TRIALS OF INFINITY

Baldur's Gate's engine hides a labyrinth of innovation and human grit. *By Rick Lane*

B*aldur's Gate* is powered by the Infinity Engine, a bespoke technology created by BioWare specifically for the game. Simple in its exterior, Infinity makes the complexity of Advanced Dungeons & Dragons playable with just a mouse, and makes use of a visual style that boils down to a bunch of animated sprites walking on top of some beautiful paintings.

Looks can be deceiving. Beneath those simple backdrops was a deep and complicated engine made up of many different tools and technologies. It was hugely advanced and also hugely idiosyncratic, while getting it to work in the way BioWare wanted was, frankly, a nightmare.

While BioWare itself was not a new studio, the *Baldur's Gate* team was almost entirely new to the games industry, with many of its designers coming straight from university. "It was just a bunch of crazy kids going, 'Let's just do this thing! How hard can it be?'" explains Trent Oster, formerly senior artist on *Baldur's Gate*, and one of the founders of BioWare. "The answer is it's really hard, [and] really easy to do things in a bad way that makes things slow and makes things horrible."

BREAKING BACKGROUNDS

Baldur's Gate is famous for its use of prerendered isometric backdrops, which enabled BioWare to represent its fantasy world in far more detail than was possible with real-time graphics. But even prerendered, each of those backdrops had a native 5120x3480 resolution – way higher than any computer from 1998 could have rendered without exploding. "Each image of that massive background was cut into a 64x64 tile, and each one of those was mastered down to its own little palette of 256 colours," Oster explains. "At runtime [Infinity] would load those little 64 bit chunks as it needed them, and it would convert them into a 16-bit colour representation that would then be rendered to the screen."

The Infinity Engine would then perform a prototypical version of modern level-streaming, adding new chunks of the background into memory as the player moved forward, and dropping off-screen chunks as they were no longer required. This 'tile-management' system was incredibly complicated, requiring a huge amount of work to optimise and necessitating lengthy loading times between screens.

Also, the dividing of backgrounds in *Baldur's Gate* into tiles increased the assets of an already huge game exponentially. "At the time, most games were throwing around 100, 200, 500 in-game assets," Oster says. "*Baldur's Gate* was throwing around 20,000 to 30,000. If you count individual tiles that made up areas, it was into the hundreds of thousands."

IT WAS HUGELY ADVANCED AND ALSO HUGELY IDIOSYNCRATIC

To manage these assets, BioWare's lead programmer Scott Grieg created a memory management system called Chitin. This worked a little like a slide projector, offering your 4MB PC a tiny window into *Baldur's Gate*'s much larger dataset. But problems began to arise when Grieg decided to make Chitin multithreaded. "Chitin wasn't multithreaded inherently. But partway through development they designed the AI system and the pathfinding system, and part of that design was getting excited about the idea of multithreading," Oster says.

In theory, this was a great way of offloading the data Infinity had to crunch through to make the game work. But at the time, multicore processors didn't exist. "When you actually think through how the data is held in the processor, and how it's interacted with, what you just engineered is a scenario for countless pipeline stalls," Oster points out.

The team tried to alleviate this problem by highlighting certain threads as 'critical', which meant they had to complete their processing before any other threads could run. But *Baldur's Gate* had over a million lines of code, so many critical threads were not labelled as such, resulting in massive performance headaches. Oster points out that in the code base there are five separate ways players can trigger an area transition. "In many cases, it was code that was almost identical but literally different by one or two parameters."

COVER-UP JOB

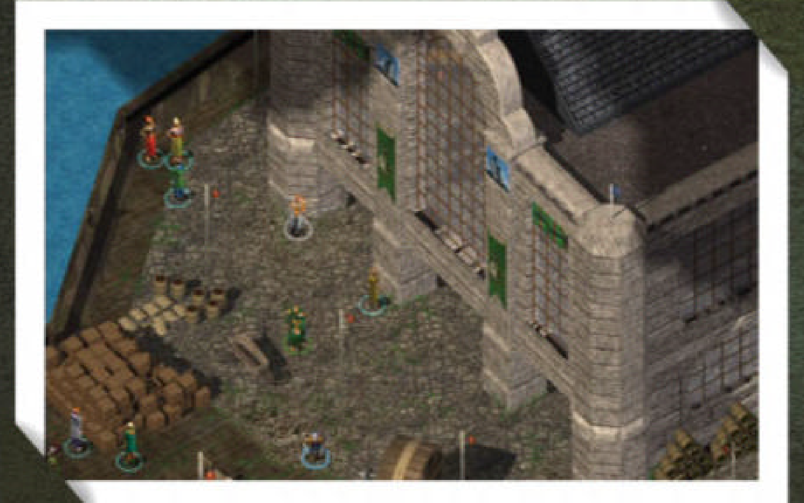
Amongst these core technical issues were dozens of other problems. *Baldur's Gate*'s UI is not an overlay, it's hard-coded into the game. Again, this was done to increase performance. "*Baldur's Gate*'s UI is fat to cover up the screen, so you don't have to render as much of the background," But this also meant the only way to make a change to the overlay was to do it via the game's code base. Want to move an icon from the left to the right of the screen? You could potentially break the game.

All of this meant that BioWare created problems for itself that could only be solved through brute force, testing every line of code, painstakingly clipping out objects in the background so that characters could walk behind walls. "The approach that BioWare took at the time, was, 'We don't know the right way to do this, we don't know how to automate things. Let's throw humans at the problem, and with enough sweat the problem will go away,' remembers Oster.

This, ultimately, is the real story of *Baldur's Gate*. The trials of BioWare's Infinity Engine were not just technical, they were physical, too. "It was a monumental achievement at the time," Oster concludes. ■

ABOVE: This image is taken from the *Enhanced Edition* of *Baldur's Gate*, developed by Trent Oster's Overhaul Games and released in 2012.

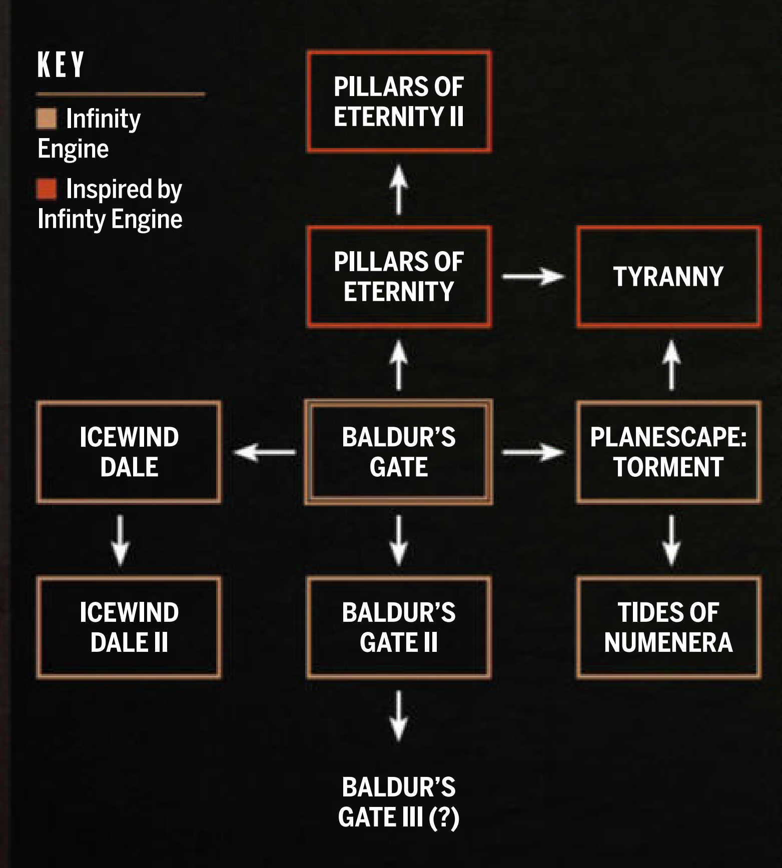
RIGHT: The original split up backdrops into 64x64 chunks, which were dynamically streamed in.





INFINITY AND BEYOND

The style of the Infinity Engine has spawned a legion of isometric RPGs





There are over one million lines of code in *Baldur's Gate*, while the script is around a million words long.



GATHER YOUR PARTY

The characters of *Baldur's Gate* are the cornerstone of the series. ***By Paul Dean***

The twisting trails and torchlit tunnels of the Sword Coast would be lonely without a friend or two to share the journey or, sometimes, to also walk ahead and check for traps. While the prudent adventurer builds a party balanced by all the standard classes and capabilities, powerful warriors alongside erudite clerics and canny rogues, *Baldur's Gate* has always been as much about who these characters *were* as what they could do. I have no doubt that, like me, you remember your favourite character's one-liners far better than you remember their stats.

A new party member was never just another faceless fighter made up of skills and numbers. Rather than being a spreadsheet that swung a sword, they were someone who brought their own personality and objectives into the group, and even some painful prejudices. *Baldur's Gate* offered the idea that your companions don't blindly offer their silent support in whatever you try next, but might run out of patience if you didn't pay attention to them or, worse, could begin fighting amongst themselves over what might generously be described as 'philosophical differences' (such as being unashamedly Chaotic Evil).

TOP: BioWare created nuanced, memorable characters that you cared about.

MORALLY GREY

Take Xzar and Montaron, two of the first potential pals lurking in *Baldur's Gate*'s woodland wilderness. Not only are they bickering bad guys, their motivations aren't quite what they seem. It's the game's way of telling you that perhaps it's not the wisest choice to simply team up with *any old adventurer you meet in the middle of nowhere*. Then there's Minsc, one of the toughest characters in the series, but also one of the least coherent: a manic man who will turn on you if you don't fulfil your promise to rescue his companion Dynaheir. His conversations with his pocket-sized pet, a so-called space hamster, are the very least of your problems.

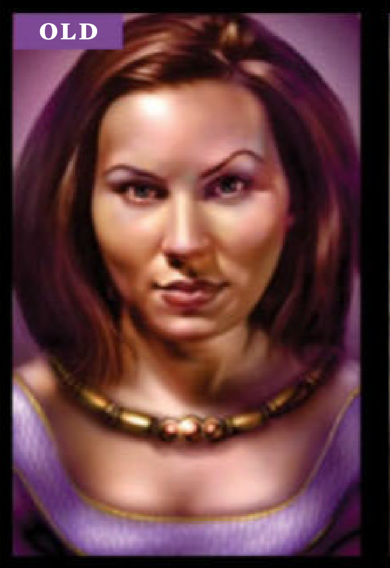
You're never sure what you're getting yourself into when you decide that someone you met in a dungeon should join you on the journey of a lifetime, and that's exactly how it should be. There's something inherently risky about the idea of teaming up with strangers you've met on the road, agreeing to face danger and even death together after barely sharing a mug of mead,

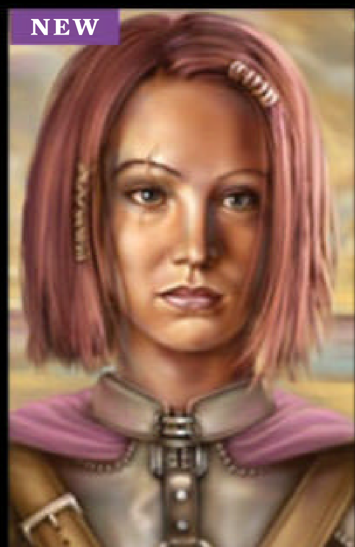
A PICTURE TELLS A THOUSAND WORDS

How characters evolved between games

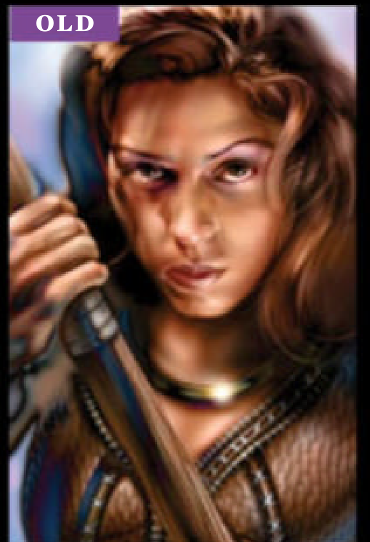
Character portraits were your connection to your party members and these could be customised, an idea that launched a hundred DeviantArt accounts and inspired countless commissions. There was also a big swing in presentation between the first game and the second, from a more photorealistic style to something that suited the second's more muted palette and more tragic characters.

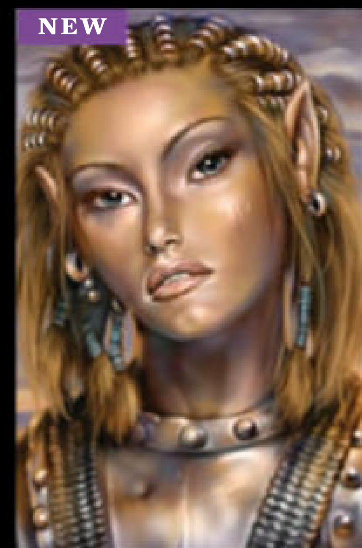
IMOEN



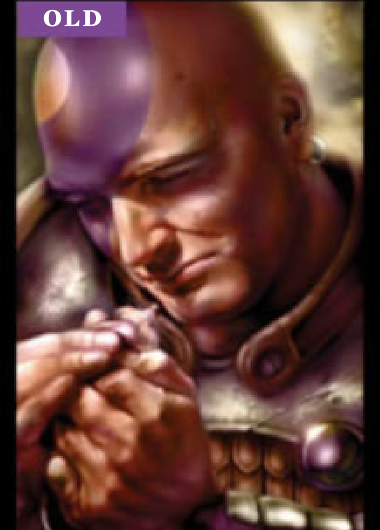


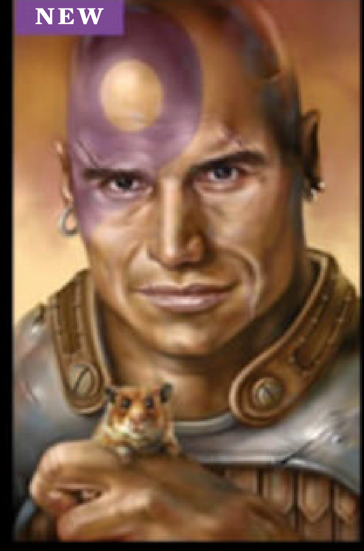
JAHEIRA

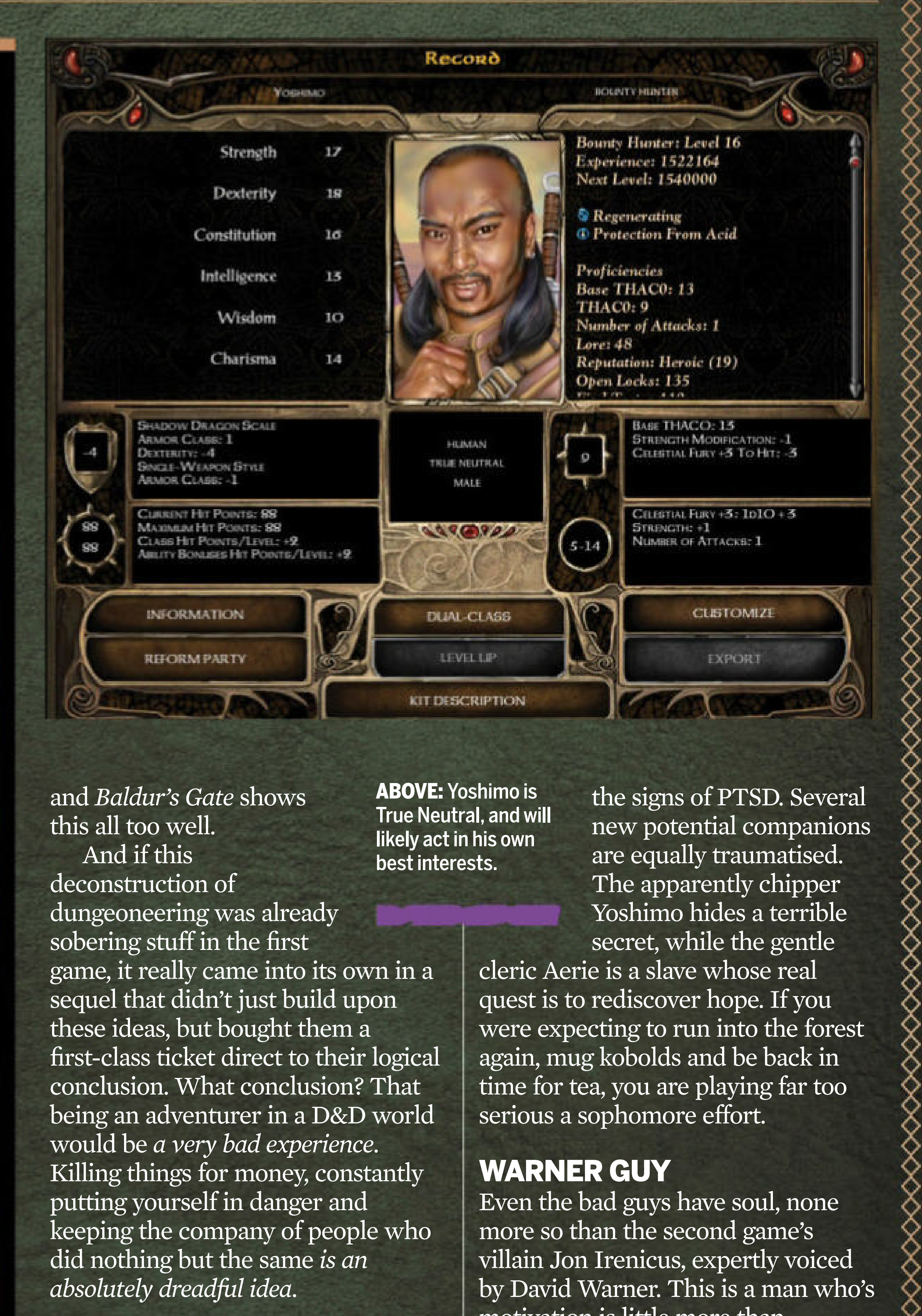




MINSC







ABOVE: Yoshimo is True Neutral, and will likely act in his own best interests.

and *Baldur's Gate* shows this all too well.

And if this deconstruction of dungeoneering was already sobering stuff in the first game, it really came into its own in a sequel that didn't just build upon these ideas, but bought them a first-class ticket direct to their logical conclusion. What conclusion? That being an adventurer in a D&D world would be *a very bad experience*. Killing things for money, constantly putting yourself in danger and keeping the company of people who did nothing but the same *is an absolutely dreadful idea*.

YOU'RE NEVER SURE WHAT YOU'RE GETTING YOURSELF INTO

First of all, each one of the first game's character pairings has been shattered by circumstance. Whether it's the aforementioned Xzar and Montaron, the goodly Khalid and Jaheira or the expertly paired Minsc and Dynaheir, each duo now consists of a cynic and a corpse. Tragedy has torn these pairs asunder and the survivors are broken people.

Even the perky Imoen, your first potential companion and arguably closest friend, is now exhibiting all the signs of PTSD. Several new potential companions are equally traumatised. The apparently chipper Yoshimo hides a terrible secret, while the gentle cleric Aerie is a slave whose real quest is to rediscover hope. If you were expecting to run into the forest again, mug kobolds and be back in time for tea, you are playing far too serious a sophomore effort.

WARNER GUY

Even the bad guys have soul, none more so than the second game's villain Jon Irenicus, expertly voiced by David Warner. This is a man who's motivation is little more than heartbreak. Your investigations reveal a person broken down into bitterness, trying to reclaim something that was lost so long ago that he can't even remember what it is he seeks.

It's a testament to these characters that, 20 years later, they still shine, they still come through as such defined, distinct personalities. They're all so *human* (whatever their race might be), far more so than in any other D&D game that had come before, and they bring so much dimension to the series, adding their quips to quest dialogue or finding ways to tease one another during downtime. They, along with so much of the excellent writing in this series, have influenced me as a writer and I remember many of them as well as I remember any favourite characters from films, books or TV. 20 years on, they still deserve that same level of love and appreciation and, boy, do they still get it. ■

ABOVE: On harder difficulties you have to think carefully about every spell and ability you use. These games never pull any punches.

LEFT: Wizards are squishy, but their spells are basically mandatory to beat some of the series' most powerful, dangerous creatures.

BESTIARY OF CLASS *The most fearsome monsters in the* Baldur's Gate *series*



1 DEMOGORGON

A legendary monster, and arguably the most challenging boss in the *Baldur's Gate* series. You'll find this beast in the *Throne of Bhaal* expansion, and to slay it you'll need to make use of your party's entire range of abilities. Before the battle you can have a thief lay traps, while mages can cast spells to weaken it. Even then, you are in for a gruelling, almost impossible, battle.



2 FIRKRAAG

A powerful dragon. If you rolled a paladin, one of your final duties is slaying him to retrieve the Holy Avenger, a legendary sword. Firkraag will cast Remove Magic on the party, removing everyone's buffs. To make your life a little easier make sure you have a cleric who can cast Protection From Fire on the group and cast Stoneskin and Mirror Image on your best tank.

FANTASTIC BEASTS

How the monsters of *Baldur's Gate* bring the combat to life. *By Andy Kelly*



When BioWare designed *Baldur's Gate* in 1998, it already had almost 25 years of D&D history to draw from. The result is one of the most varied and exciting bestiaries in RPG history. Across the two games and their expansions, the Bhaalspawn battles all manner of dreadful beasts, from trifling kobolds and rats, to powerful mind flayers and beholders. And it's in these encounters where the game's real-time-with-pause combat comes to life, forcing you to think carefully about how to slay each foe.

There's plenty of sword fodder in *Baldur's Gate*. You can slice through the kobolds in the Nashkel Mines without breaking a sweat. But it's when a more formidable enemy confronts you that you have to pause the game and have a good old rummage through your party's abilities. Mind flayers, a D&D favourite, are squid-faced monsters who can mess with your mind, draining your intelligence to the point where if it reaches zero you die instantly. And to make matters worse, they're often accompanied by umber hulks: giant, ugly insectoid creatures that can inflict confusion.

MIND OVER MATTER

But the beauty of *Baldur's Gate* is that, thanks to the depth of its combat, even the most powerful enemies can be outsmarted by a clever player. Mind flayers can drain Intelligence, but what if the thing they're attacking has no Intelligence *to* drain? Cast the Animate Dead spell to send a horde of mindless skeletons to attack. But that's just one solution: search Google for any enemy in the game followed by the word 'strategy' and you'll find pages of people on forums sharing their own tactics.

On easy difficulty settings you can play *Baldur's Gate* like an RTS, clicking on enemies and simply waiting for their health to deplete. But this is ultimately a boring way to play the thing. Every enemy is a puzzle to solve, and combining your party's abilities to outwit and defeat them is a big part of the experience. And because of the sheer number of spells, classes, enchanted weapons, potions and enemies there are to experiment with, it's rare to find yourself settling into any kind of routine. You have to engage with every big fight on a deep level, and that makes for a really satisfying RPG.

> **IT'S RARE TO FIND YOURSELF SETTLING INTO ANY KIND OF ROUTINE**

DANGER ZONE

Another product of the monster design is making the world feel genuinely intimidating. When you're creeping through a dungeon, the fog of war unfurling before you, there's a palpable feeling of dread. Your mind starts racing: what if there's a beholder around this corner? Or a lich waiting in the next chamber? The dungeon designers often lull you into a false sense of security with skeletons and spiders, then suddenly spring a vampire or a group of adamantine golems on you.

And that's what a good dungeon crawl should feel like. Not like *Diablo* where you're an almost unstoppable force, reaving effortlessly through waves of demons. You want to feel like you're delving into some forbidden, cursed place, where danger lurks around every corner, but the twinkle of treasure waits at the end as a reward. By making every battle count, and designing enemies that you have to use your brain to defeat, BioWare achieves this brilliantly, in both *Baldur's Gate* games. I'll never forget the terror I felt the first time I saw a dragon.

This approach to enemy design means that some battles are legendarily difficult. In *BGII* you can collect the body parts of a lich named Kangaxx, put him back together, then fight him. He has a 90% resistance to physical damage, can't be damaged by anything less than a weapon with a +4 enchantment, and a ring that regenerates his health. This is one of the hardest bosses in the game, but players have found amusing ways to cheese it, such as casting Protect From Undead on a couple of fire elementals, sitting back, and letting them do the work.

Yeah, it's a cheap trick, but that's all part of the appeal of *Baldur's Gate*. You might be facing off against one of the most powerful, evil creatures in existence, but if you're smart, you can come out on top. ■



3 LICH
Encountering one of these undead magic users is enough to make even a hardened adventurer defile their pantaloons. They're immune to non-magic weapons and have a range of nasty spells at their disposal. They'll cast Stoneskin and Spell Trap on themselves, making them almost invincible, but a few well-placed Arrows of Dispelling can weaken their defences a little.



4 BEHOLDER
One of the most feared monsters in D&D. It can cast devastating spells, including turning you to stone, slowing you and dominating your mind. To take one down you need to make ample use of buffs such as Spell Shield and Haste. You can also temporarily prevent it from casting spells, or use the Shield of Balduran to block its magic. Beholders are always a challenge, and a total nightmare, to fight.

GETTING IN GEAR

Hats off to all those spectacular and sensational magic items. **By Paul Dean**

The Forgotten Realms is a dangerous place indeed, certainly for adventurers who make it their business to trek far and wide. There are plenty of times when a silver-tongued smoothie can and will talk their way out of the very worst of trouble, but every adventuring party finds themselves in a fight sooner or later. Fortunately, the *Baldur's Gate* series offers far more than its fair share of spectacular adventuring gear to help them both kill and not be killed. Here are some of the most important (and unusual) items you can find.

Whether you're trawling the markets, hoovering up all that dungeon detritus or picking clean the corpses of the recently departed, you can't help but trip over items dripping with enchantment. Quite literally, on some occasions, such as is the case with the powerful Ring of Wizardry poking out of the grass outside The Friendly Arm Inn, very early on in *Baldur's Gate*. Hidden discreetly under a tree in the centre bottom of the map, it's an essential tool for wizards. While much of the series' loot is a means to an end, some of it remains as memorable as it is mighty.



RIGHT: Gathering and wielding an armoury of rare, magical gear is a real power trip.

In what other series might you find a talking sword with almost as much to say as a party member? Lilarcor would be an impressive weapon if it *didn't* also have a whole bunch of advice and opinions that it was all too willing to share, even when it's thrust midway through a zombie's guts. The conversation, however, can be a little one-track. It's not the first place you should turn to for serious, heartfelt counsel.

For those who like both their magic swords and moral dilemmas to be less complicated, *Throne of Bhaal* offers the legendary Carsomyr, The Holy Avenger, which grants a monstrous +5 bonus with an additional +5 damage to any Chaotic Evil creature it strikes. It can be upgraded further if you attach the obscure Eye of Tyr, making it almost indispensable. The bad news? It's only effective in the sanctimonious grip of a Paladin.

SUITS YOU

Perhaps your alignment requires something more amoral? May I suggest the chic Robe of Vecna? This elaborate, overcaffeinated dressing gown slips easily over the head of any sorcerer and speeds up the casting of all of their spells, so much so that







WHAT DOES IT ALL MEAN?

The mechanics behind *Baldur's Gate* look a little obtuse in this day and age. Based around the Second Edition ruleset of Dungeons & Dragons, it contains all sorts of quirks and curiosities. Here's what's going on behind the scenes

1 ARMOR CLASS
Bafflingly, having a lower AC score is actually *better*. It represents both the hardness of your equipment, and also your ability to avoid attacks. Yes, this is completely different to how it works in subsequent editions of D&D, and yes, this does mean that you can have a *negative* AC and that this is *terrific*. AC minus five? Great stuff. Good job.

2 THACO
Short for To Hit Armour Class Zero, this provides the reference number from which all your to-hit rolls are calculated. If you hit Armour Class 0 on a roll of 17, it means you hit Armour Class -1 on an 18, Armour Class 1 on a 16, and so on. Think of two rows of numbers stretching out in two different directions, anchored at this point.



3 THIEF SKILLS
While Second Edition D&D expressed most skills as a number to roll under, someone decided Thief-related skills had to be expressed as a percentage instead. If you want to move soundlessly, spot a trap or pilfer a purse, you roll under the relevant percentage, which you can gradually increase each level.

4 SAVING THROWS
Are you used to rolling under your Thief skills? Great! Now it's time to try and roll *over* your Saving Throws. The lower these numbers, the better, and they'll drop every few levels. They're divided into some strange categories, too, meaning your save against a wand is different to that against death magic or petrification. Let us know if you ever find out why.

IN WHAT SERIES MIGHT YOU FIND A TALKING SWORD?

fireballs are fired off in moments and the corrosive Cloudkill begins its work in the blink of a weeping eye. It's a fashionable choice and more socially acceptable to wear than that +5 set of Human Flesh armour that one particular tanner is all too keen to sew together for you.

While many of the most powerful weapons in the series are to be found in the later stages of *Baldur's Gate II*, the first game also offers players some extremely impressive gear if they're willing to engage in a little cold-blooded murder. Fighting back gnolls near Nashkel is the legendary hero of literature Drizzt Do'Urden, who would never be seen without his two +3 scimitars and shining suit of Mithral Armour. Taking him down makes for one of the toughest fights in the game, and the reputation hit is terrible. But if you're even considering killing a D&D legend, you likely have no qualms.

If you appreciate your crossovers and nodding references, you might also want to try out Vhailor's Helm. Not only is it included as a tribute to the series' magnificent cousin *Planescape: Torment*, it also allows its wearer to create a duplicate of themselves once per day. Not bad for those moments when you need an extra pair of hands. Identical hands.

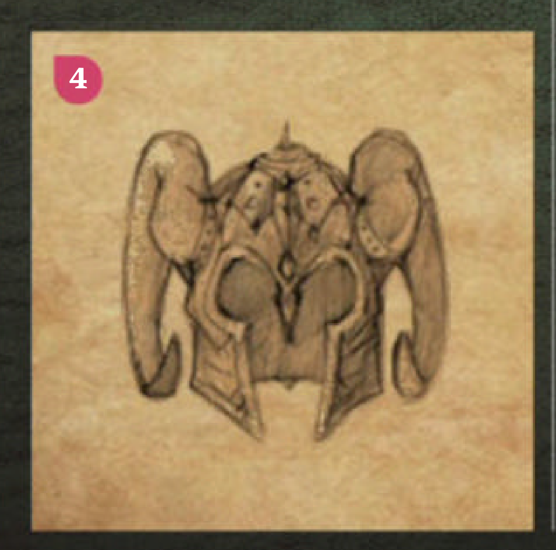
But if true power is what you seek, there's little that compares to the Staff of the Magi, which is regarded as one of the most impressive items in the series. Although its bonus to hit and damage is a moderate +1, it improves Armour Class, Saving Throws, confers Protection From Evil, makes its bearer immune to charm spells, dispels magic, casts Fireball, Lightning Bolt and Spell Trap *and* confers Invisibility. It's essential for any wizard who wants to be an unseen apocalypse.

WEAR THE PANTS

Finally, the most *exceptional* find in the series might be a pair of trousers. Or, more precisely, multiple trousers, spread out across multiple games and expansions. Acquire the Golden Pantaloons in *Baldur's Gate*, the Silver Pantaloons in the sequel and the Bronze Pantalettes in *Throne of Bhaal*, and you have the recipe for something truly special: The Big Metal Unit. This suit of armour can be worn by any class, and boasts an astronomical armour class of -10. Is it overpowered? Probably. Should you get it anyway? Definitely. ■

3

4



1: Lilarcor
2: Evermemory
3: Firetooth
4: Vhailor's Helm

A KNIGHT ON THE TOWN

The joys of *Baldur's Gate II*'s epic second chapter.

By Richard Cobbett

There's something wonderful about playing an RPG that wants you to be part of its world, and not simply a rampaging force of destruction cleaving through it. That's what makes *Baldur's Gate II*'s second chapter so special. In a game that's mostly about a journey, it's a change to settle down for a while, to make its capital city of Amn your home, and even put down a few roots in a city with a very distinct set of rules and an archly observed sense of culture.

The premise is simple. You need to travel to a mage prison called Spellhold, and for that, you need a lot of money. Cash. Gold. Moolah. More dosh than you're going to find by killing a few goblins. Unlike most RPGs, however, you don't simply head to a map marker to do a specific quest, but are cut loose in the middle of a thriving metropolis to earn it however you see fit.

This 'objective' based system of advancement really should have been ripped off more often. We have seen its like occasionally, most recently in *Shadowrun: Dragonfall*, where your team of mercenaries have basically the same goal of raising money to get to the boss, and to a lesser extent in *Fable 3*, which was about funding a counterattack against the forces of darkness. However, nothing's ever done it better than *Baldur's Gate II*, which effectively turned its second chapter into a whole anthology of surprisingly in-depth D&D modules in their own right. These not only offered missions – such as saving new party member Nalia De'Arnise's family home, or propping up a theatre – but a stronghold, specific to each major character class, for the player to call home, complete tasks for and return to throughout the rest of the game.

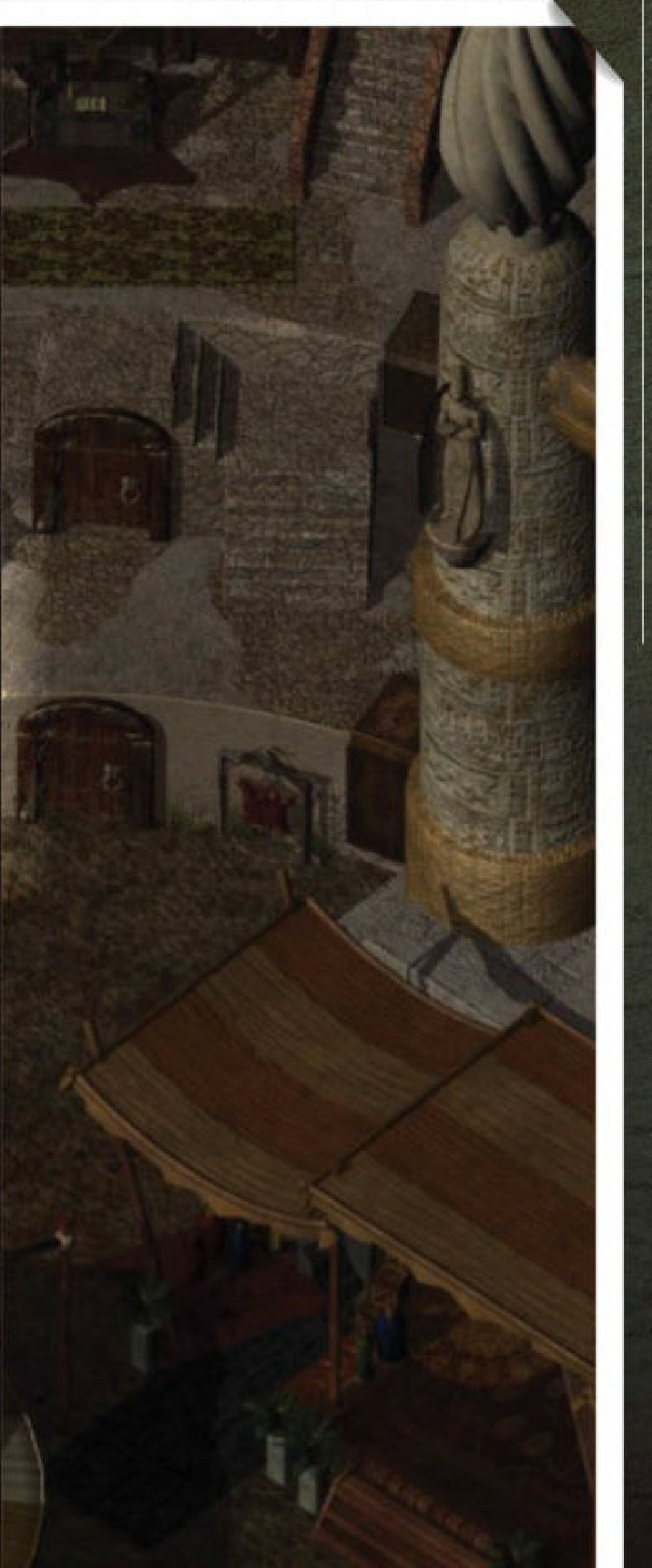


EARNING YOUR KEEP

While the strongholds were class-dependent, the quests leading up to them were available to everyone, and that wasn't the only choice to make. There were two factions vying for your attention, and plenty of smaller quests to pick up while just wandering around. Everyone praised *The Witcher 2* for having two wildly different second acts to play, but *Baldur's Gate II* essentially shoved an entire RPG into one chapter.

You didn't have to do much of it.

EVERY PLAYER GOT SOMETHING SPECIAL, PLUS PLENTY MORE



Conveniently, each quest resulted in an incredible payout, and you only got the one stronghold per run. Still, every player got something special, plus plenty more.

It's one of the best chapters in any RPG, both for that freedom, and for its restrictions. Magic, for instance, is forbidden in the city, and casting it will quickly summon some mage-killers called the Cowled Wizards to first warn you, then zap you. In keeping with the freeform nature of this chapter, however, even that is more interesting than it might sound, with a choice to just keep your wand in your proverbial pants and not use magic, to pay for an expensive licence that lets you practice it – valuable cash that could be going into your Actually Continue The Quest Fund – or fight back against them until they accept you're too tough for them to control and they agree to leave you alone. That's an interesting choice – and the kind that's been sadly missing even from games like BioWare's own *Dragon Age*, which paid lip service to the idea that Mages were illegal, but never actually dared step up and interrupt the fun.

HANG YOUR HAT

The stronghold quests are the standout part of the chapter, of course. Along with the ones mentioned before, a Mage gets a planar sphere and plucky apprentices, a Druid their own grove, a Cleric their own temple and so on, each with events like putting on a play by choosing the star, writing music and fighting off invading barbarians. Yes, that's still during the Bard's theatre quest. You simply can't make it in show business without breaking a few skulls!

BY THE BOOK

Don't buy the novelisation! We polled 100 BGII fans on what to do if you find a copy



These events are timed, scattered throughout your journey, and, again, contribute more than just extra content. Instead, they add to the sense that wheels are turning away from your party's direct actions, as well as giving your exiled hero a much-needed second home. It's easy to get caught up in them to the point of being disappointed when they're over, and all that's left is the matter of tramping across the world to insert a +2 boot into evil's behind.

Replaying the chapter, however, is much like going back to games like the original *Fallouts* – a reminder of how much more RPGs can do than we often see, and how many ideas are out there waiting to be dusted off and tried again. *Shadowrun: Dragonfall* picked up this excellent flag once. Fingers crossed that future games will continue where it left off. ■

FAR LEFT: Cutscenes of caster fights aren't as cool when viewed from space.

BELOW: The writing above the gates says 'Lord British is a-' Oh, how impolite!



PC GAMER

REVIEW

HOW WE REVIEW

We review each game on its own merits, and try to match it to a reviewer who's a passionate expert in the field. The main aim of reviews is to help you make buying decisions. To this end, we're selective about what we review, and try to focus on the notable, interesting, exciting or surprising.

DOWNLOADABLE CONTENT

DLC might be new missions for a game, or it might be a single new item. If we think you want to know about it, we'll review it.

EARLY ACCESS

Any released alpha, beta, or otherwise unfinished game that you can currently pay for. For these games, we won't assign a score, but we will tell you whether they're worth your time.

THEY'RE BACK

Whenever there's a bargain or re-release of a significant game, our expert will revisit it and tell you whether it holds up today. With jokes.

OUR SCORING SYSTEM EXPLAINED

00%-09% Broken or offensively bad; absolutely no value.
Example *Leisure Suit Larry: Magna Cum Laude*

10%-19% We might be able to find one nice thing to say about it, but still not worth anyone's time or money.
Example *Gettysburg: Armored Warfare*

20%-29% Completely falls short of its goals. Very few redeeming qualities.
Examples *Family Guy: Back to the Multiverse*

30%-39% An entirely clumsy or derivative effort. There's little reason to play this game over a similar, better one.
Examples *Trials of the Blood Dragon*

40%-49% Flawed and disappointing.
Examples *Aliens: Colonial Marines*

50%-59% Mediocre. Other games probably do it better, or its unique qualities aren't executed well.
Examples *Primordia, Homefront: The Revolution*

60%-69% There's something to like here, but it can only be recommended with major caveats.
Examples *No Man's Sky, Ghost Recon: Wildlands*

70%-79% A good game that's worth playing. We like it.
Examples *Prey, NieR: Automata*

80%-89% A great game with exceptional moments or features, and touches of brilliance. We love it.
Examples *Overwatch, Night in the Woods*

90%-94% A compelling recommendation for most PC gamers. Important to PC gaming, and likely ahead of its time.
Examples *Bayonetta, Dishonored 2*

95%-96% Far and away one of the best games we've ever played. We recommend it to the entire world.
Examples *Half-Life 2, Kerbal Space Program*

97%-100% Advances the human species. Boosts the immune systems of nearby children and small animals.



The Editor's Choice award is granted in addition to the score, at the discretion of the PC Gamer staff. It represents exceptional quality or innovation.

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Outwit-man 2

I've spent over three decades cultivating the image of an irate, tiny lady draped in a monkey cardigan, setting up the perfect disguise for this *Hitman* mission where I take down the crimelord Phil Savage.

But even with this amazing disguise it has proven hard to find a window of opportunity. For example, I tried blending in with a selection of croissants with the intention of poisoning one, but got distracted by eating croissants. Then I was going to lurk in the podcast room and take him out with a replica Infinity Gauntlet, but I ended up napping on the sofa. I guess the only option left is to train a dog to steal the office security guard's bomber jacket, then subcontract the security dog to do the murder instead.



PHILIPPA WARR
DEPUTY EDITOR
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GREATEST HITSMAN

HITMAN 2 is more of the same, but is that a bad thing? *By Phil Savage*

Stabbed. Strangled. Electrocuted. Drowned. Technically, *Hitman 2* – like its predecessor – is an incredibly violent game. Your job as master assassin Agent 47 is to ensure a hit list of rich jerks meet a macabre end, preferably silently, with no witnesses or alarms. But – again, like its predecessor – *Hitman 2* doesn't revel in its violence. It's not gruesome or gory. Your missions are more cerebral; a puzzle box where the win state is an arsehole being dead.

I could write 'like its predecessor' a lot when describing *Hitman 2*. Perhaps more than any game in this 18-year-old series, *Hitman 2* feels like a continuation of 2016's *Hitman*. *Hitman 2: Silent Assassin* was a major improvement upon *Hitman: Codename 47*. *Hitman: Blood Money* was a significant upgrade over *Hitman: Contracts*. *Hitman: Absolution*... well, let's not talk about that one.

Hitman 2, though, is an iteration. It looks more impressive, but not by much. Its crowds are more dense, but not by much. The UI, menus and disguise system are all the same, and it shares the same crisp aesthetic style. Even the tutorial is a direct copy – the same two training missions set in a plywood simulation taking place in a massive underground silo. This is more 'season two' than what you might usually expect of a full sequel.

It's something that feels important to mention, but it didn't hinder my enjoyment of the game. That's because, taken as a whole, *Hitman 2* is more consistent in the quality of its levels. Where *Hitman* was episodic, this sequel offers its six missions at launch. And, with one exception, all are large and intricate – labyrinthine structures and winding streets full of challenges to overcome and opportunities to pursue.

The first proper mission features a combined racecourse and exhibition centre, separated by an underground parking complex. The Colombian village of Santa Fortuna is larger still, containing a mansion, a construction site, an underground cave network, a drug plantation and a section of rainforest. Even after over an hour spent dealing with its three targets, I hadn't fully explored the space.

> **A great *Hitman* level forces you to adapt and respond as you go**

Mumbai is like a better version of 2016 *Hitman*'s Marrakesh, with large, bustling crowds that border more restricted areas that, crucially, are more enjoyable to traverse. A construction site that doubles as a movie set is a particular standout, with a clever placement of guards that ensures that – even with the right disguise – you'll need to take a circuitous path or scale the unfinished elevator shaft. A great *Hitman* level forces you to adapt and respond as you go, and *Hitman 2*'s environments excel at providing the routes and options needed to adjust your plan on the fly.

NEED TO KNOW

WHAT IS IT?
Sandbox stealth about a clone who is good at killing. Again.

EXPECT TO PAY
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DEVELOPER
Warner Bros Interactive Entertainment

PUBLISHER
IO Interactive

REVIEWED ON
Core i5-6600k, GTX 1070, 16GB RAM, Windows 10

MULTIPLAYER
Online modes support two players

LINK
www.hitman.com



TRADITIONS OF THE TRADE

Really, though, there are only five of these giant sandbox environments. The first actual mission, set in New Zealand, has 47 explore a small beachside property. It functions more like an introduction to the game's concept than a level proper. The other five, while all excellent, do suffer from familiarity. The latter episodes of 2016's *Hitman* started to play with the structure of what a *Hitman* level could be, leading to more experimental spaces like Hokkaido, where access was directly tied to the disguise 47 was wearing. *Hitman 2* feels more restrained. It riffs on familiar design principles, invoking Sapienza, Paris and even *Hitman: Blood Money*'s US suburbs.

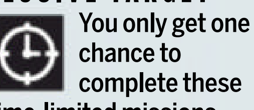
Like its predecessor, the way each mission plays out is largely up to you. By default, *Hitman 2* does a lot of hand-holding. You'll walk around the public space of each mission until you overhear a conversation that is in some way related to your mission. That triggers a prompt for a 'Mission Story' – the new name for *Hitman*'s Opportunity system. Elect to follow that prompt, and you'll be guided on a series of steps that will put you in reach of your target. In Miami, for instance, I overhear a military general talk about his upcoming meeting with one of my targets, the tech CEO Robert Knox. In response, the game suggests that I steal his clothes.

That's a basic example – many of the Mission Story strands are more complex – but it illustrates how the objective system strips away the puzzle element in favour of basic execution. I'm told what to do, but »

ROLLING CONTRACT *The many things to do in* Hitman 2

MISSION

Kill your targets, either quietly like a professional, or loudly like a murderous chump.

ELUSIVE TARGET

You only get one chance to complete these time-limited missions. Don't screw up.

ESCALATION

A mission repeated five times. With each completion, new complications are added.

CONTRACT

User-made missions, usually with specific requirements for how to kill your target.

SNIPER ASSASSIN
Like *Duck Hunt*, but the ducks are people and the hunt is a stealthy sniping spree.

GHOST MODE

A multiplayer race to quietly kill as many targets as possible before your opponent.

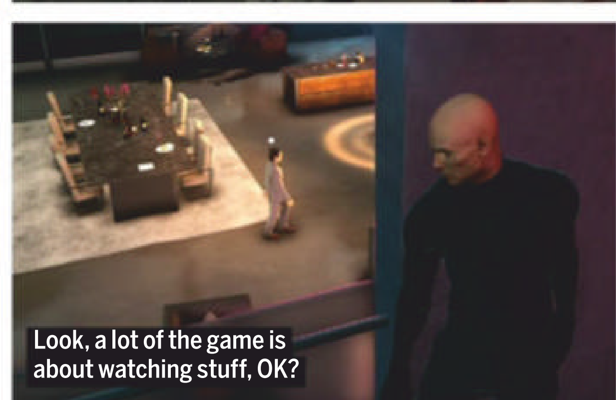


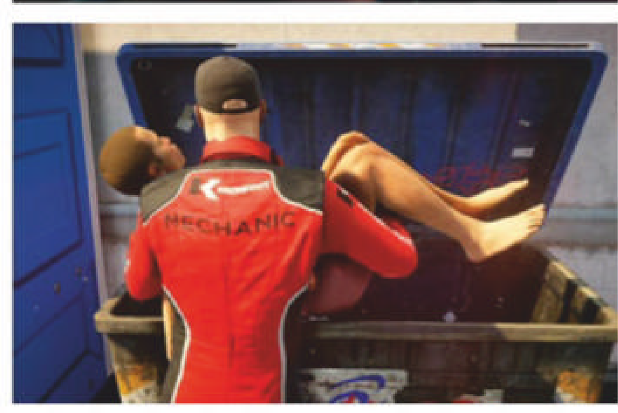
Good *Hitman* play doesn't look very interesting on the page.


Just a screenshot of 47 at a balcony. *STEALTH!*


This was a tense moment, but it's just 47 near a bin. Sorry.




Look, a lot of the game is about watching stuff, OK?




This almost counts as action, right?


Boff! That's more like it! Some action on the page!


A standoff! (This ruins your end of level score.)

A shootout! How exciting! I'm playing like a dipshit.




Actual explosions! This has blown my cover.


I hope you enjoy this screenshot, because my mission is ruined.

GHOSTED *Your first attempt at Ghost Mode probably won't go well*

0 - 0 "Okay, what are we supposed to do? I don't have any weapons. Wait, my opponent is sprinting off. Have they done this before?"



0 - 1 "They've already killed the target? I can still get a point if I also kill him. Ugh, where even am I?"

0 - 2 "New target. If I just wait for him to get out of sight of everyone else... wait, the other player has already killed them? Let's just go for it."

0 - 3 "Great, now every guard on the map is after me. This is going badly."

1 - 3 "Holy crap, I did it! I killed a target and nobody saw me. Am I getting the hang of this?"

2 - 3 "I am! I am getting the hang of this! I've nearly caught up."

3 - 4 "We both got the kill that time. At least it's still close."

1 - 4 "Oh, right. You lose points if you kill an NPC."

1 - 5 "I should have been changing disguises instead of sprinting everywhere. Looks like the winner is the first to five points. Maybe next time."

it's up to me to subdue the NPC and hide his body, ensuring that he's not found. Even playing like this, though, only some of these paths end with an obvious death. *Hitman 2* is designed for repeat playthroughs, and some of the more inventive ends require extra planning, using knowledge gained from a previous run.

TERMINAL HOSPITALITY

Suitably dressed, I meet Knox for a private demo of some new military hardware – putting me in reach of him, and thus, his death. But contextual prompts within the space suggest a way I could turn his tech against him. I have to leave that for a second, more gratifying playthrough, where I use my expanded knowledge to hunt down the specific items I need to execute my plan. Ironic deaths are always the best.

I prefer to play with Mission Story hints disabled – at least for my first run through each level. The opportunities are still there if you find them, with relevant information logged in a separate intel tab, but it feels more natural, leaving you to identify the relevant steps. Thanks to the size of each level, this meant my first attempt at a mission usually took well over an hour to complete. Still, for me, it's the most satisfying way to play, and I appreciate how granular the options are – letting me define the exact amount of challenge I desire, while still offering a helping hand for those who want it.

> ***Hitman 2* feels safe. That's something of a double-edged sword**

There are difficulty options, too, but I never felt the need to experiment with them. Master, which limits you to a single save and adds extra guards and cameras, feels like more of a chore than a challenge. Professional, the default option, is pitched just right. Again, the option is there if you want it, but here feels beside the point. *Hitman* as a series is designed to let you define your own level of competence. You can botch your way through a level, leaving a trail of dead as you go. Or you can aim for Silent Assassin rank, killing only your targets and leaving without a trace.

Each mission has a selection of challenges rewarding you for every achievement, from killing your targets in specific ways to impressive feats like gaining a Silent Assassin rating without ever wearing a disguise. As has always been the case in *Hitman*, your primary method of infiltration is playing dress up – wearing the clothes of someone who is allowed to be in the place you need to go. But *Hitman 2* is also a more competent stealth game, with a new concealment feature that lets you blend into crowds or hide in bushes. It won't change how you play, but does give you breathing room before you need to start executing your plan.

The benefit of completing challenges is that you're rewarded with XP that unlocks new tools, starting locations and stash points. It's another way for *Hitman 2* to eke more entertainment out of the same five levels. My playstyle means that, for my first run through, I didn't go anywhere without my lockpick and a handful of coins used to distract NPCs. But after earning a few levels of mastery, you'll have access to a fun arsenal of guns and toys. IO has even brought back the briefcase, meaning you can finally carry a sniper rifle around without instantly being attacked by every guard on the map.

CURTAINS DOWN

Many of the other new features don't really make themselves known. The detection UI has been updated a bit, which is nice, I guess. And apparently NPCs can now see you in mirrors, which hasn't yet been a factor in any of my playthroughs. The other big change is the cutscenes, which are now delivered as a slideshow of dynamic images. I've never been invested in *Hitman*'s story, but the switch is distracting – especially because the (repeated) tutorial's cutscenes are fully animated.

Familiar problems persist, too. Occasionally these intricate simulations break down, with characters stopping a conversation mid-sentence in order to trigger a different conversation, before returning to the first as if the uncanny interruption had never happened. And – like its predecessor – it all but requires you to have an online connection. You can play offline, but you can't complete challenges or unlock new stuff.

Ultimately, *Hitman 2* feels safe. That's something of a double-edged sword. It means this sequel offers very little in the way of innovation, but also means five quality levels (and New Zealand) that can rival some of the best in *Hitman*'s history. Perhaps more importantly, it's a robust platform for more one-time Elusive Targets, more user-made Contracts, more Sniper Assassin maps and more levels through future expansions.

When 2016's *Hitman* was announced as being episodic, I was confused, yes, but also excited at the idea of constantly expanding space for new *Hitman* levels. By being so much like its predecessor, *Hitman 2* is set to fulfil that original goal. When paired with the additional *Legacy Pack* – free to owners of 2016's *Hitman* – which adds the previous game's levels, *Hitman 2* positions itself as the essential platform for entertaining murder puzzles. ■

PC GAMER VERDICT

Essentially more of its predecessor but with a more consistent quality of levels. Which is fine: its predecessor was great.

84

TOP SIGNING

FOOTBALL MANAGER 2019 returns to the digital dugout for its best entry yet. *By Joe Donnelly*

If Manuel Neuer saves this I might keep my job. I mean, it was never a penalty. No one on the pitch thought so, not even the referee and his assistants. With just five nail-biting minutes left on the clock, we could almost taste the semi-final. But the VAR has bitten me on the backside, and now my future at Bayern Munich hangs in the balance. In short, *Football Manager 2019*'s latest match day feature is ruthless.

Video assistant referees were introduced to football at the FIFA World Cup 2018. Designed to aid on-pitch referees with contentious decisions, an off-pitch official watches the game remotely; refs can consult the VAR on complicated calls, and big decisions can be overturned. And so my digital livelihood lies literally in the hands of my goalkeeper.

The whistle sounds. Neuer goes left. Agüero goes right. My side's 2019-20 Champions League campaign is all but over, and, out of the German Cup and a fourth placement in the Bundesliga, I dread my meeting with the chairman.

I'll blame this season's failures on the VAR, but it's more likely my unreliable tactics and training regimes at home are to blame. Both systems have been overhauled in this year's *Football Manager*.

A thorough but streamlined tutorial leads to the new 'tactical styles' system, which makes replicating real-world formations easier than before. Borrowing from reality, it lets you mix and match well-worn strategies with your own ideas, and doing so led me down an unsuccessful path of experimentation at Bayern – fully licensed for the first time, alongside the entire Bundesliga.

I stepped away from the club's renowned strength-meets-one-touch football philosophy, and switched to a 3-5-2 set up, with a focus on wingers and wide long balls. I'm old school, and let's be honest: Tiki-Taka sounds more like a happy hour cocktail than it does a style of play characterised by short and fast passes.

Whereas personalised tactics proved a convoluted process before, *FM 19*'s system simplifies things by recommending on-pitch roles along the way, with the option to autofill your best-suited squad thereafter.

> ***FM 19*'s overhauled training also grants players more autonomy**

Likewise, the new system lets you direct your players when in possession, in transition and when out of possession. This lets you micromanage throughout a match – be that pushing wide when moving forward, pressing high up the pitch, or parking the bus Mourinho-style.

This is complemented by *FM 19*'s reworked training system. Split into 11 categories, players choose from 40 different sessions – such as attacking, defending and goalkeeper handling. An extension of last year's Dynamics system, which lets you manage social hierarchies on and off the pitch, also lets players undertake morale-boosting activities, such as team bonding and community outreach.

You can still delegate to backroom staff, but *FM 19*'s overhauled training also grants players more autonomy. Being able to see the direct effect of training on players is the standout feature, where your best and worst are identified before match day.

FLYING COACH

I reckon the tipping point of my Bayern tenure came by running my team into the ground. By prioritising physical drills, I found fitness levels and strength across my team spiked. Conversely, my players were always knackered, injured or both. *FM 19* lets you combine sessions tailored to you squad's needs, with schedules designed to prepare for hypothetical scenarios throughout the season. It turns out 'no pain, no gain' is as outdated as you might think.

Combine all of this with last year's dynamics system and overhauled medical and scouting systems, and *FM 19* marks another impressive stride forward for the footie management sim. The long-serving series is the best at what it does, and will be forever judged on its incremental changes year-to-year. This instalment dazzles with both its headline features and a multitude of second-tier improvements, such as mid-season holiday camps and more sophisticated contract negotiations.

And so, as expected, the chairman wants me out before the club endures a dressing room revolt. I'm once again unemployed. What now? Perhaps I'll return to Scotland and sign for my beloved Glasgow Celtic. After all, the Scottish Football Premier League is yet to adopt video assistant referees. ■

NEED TO KNOW

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LINK
www.footballmanager.com

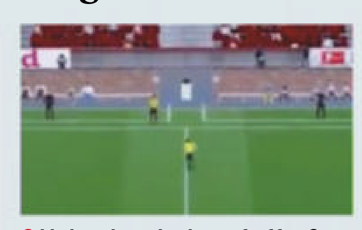


VAR-T BROKEN

The four stages of processing VAR decisions



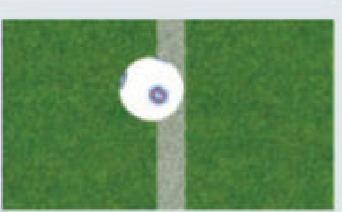
1 GOOOOOOAAAAAALLLLLLLL!



2 Huh, where's the ref off to?



3 Ah... he's checking VAR.



4 Goal disallowed. NOOOOOO!

PC GAMER VERDICT

The series returns full of new and overhauled features. It's the best at what it does, and *FM 19* is the best it's ever been.





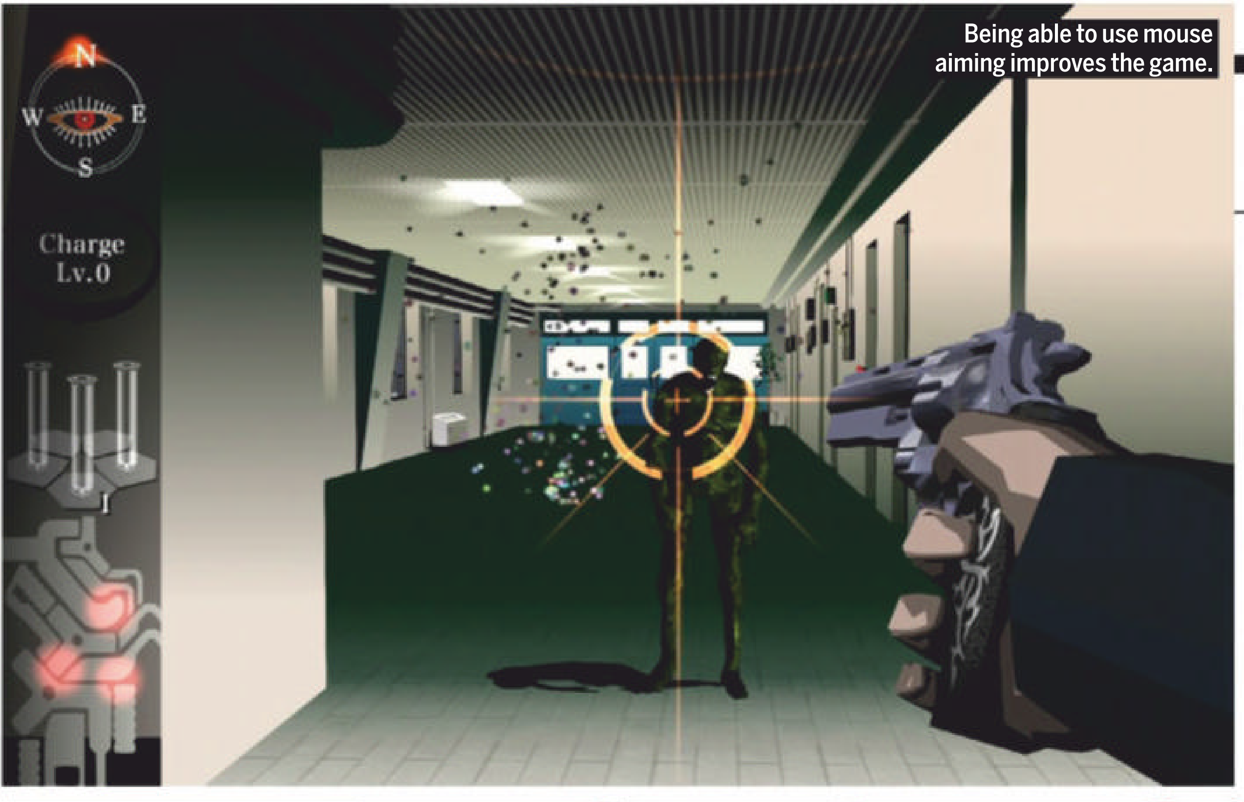
FM 19's graphics engine has a host of new animations.

Formation autofill is still a job-saver.

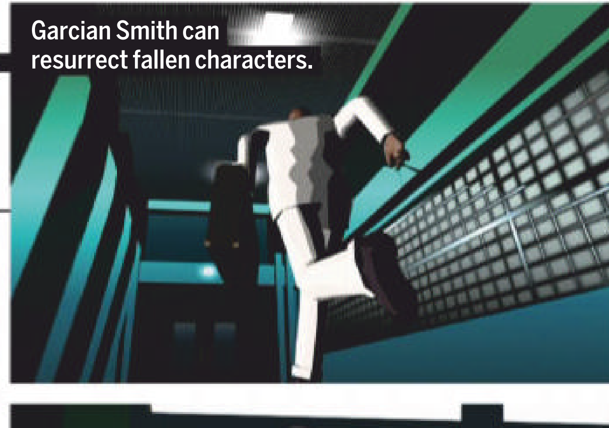
A streamlined UI ensures you get the best out of your best.

Tinker, tailor, shoulder, shy!

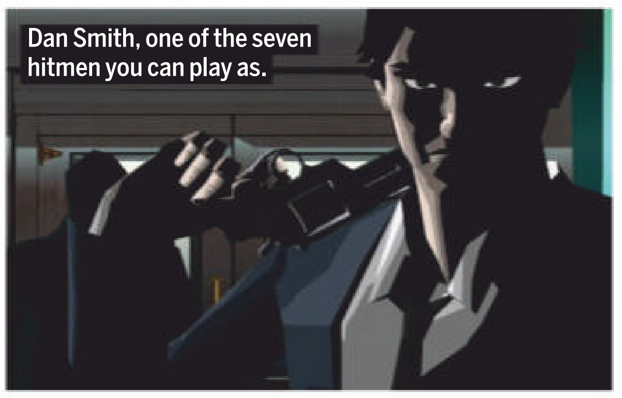
With 40 training sessions, you can get relegated in style.



Being able to use mouse aiming improves the game.

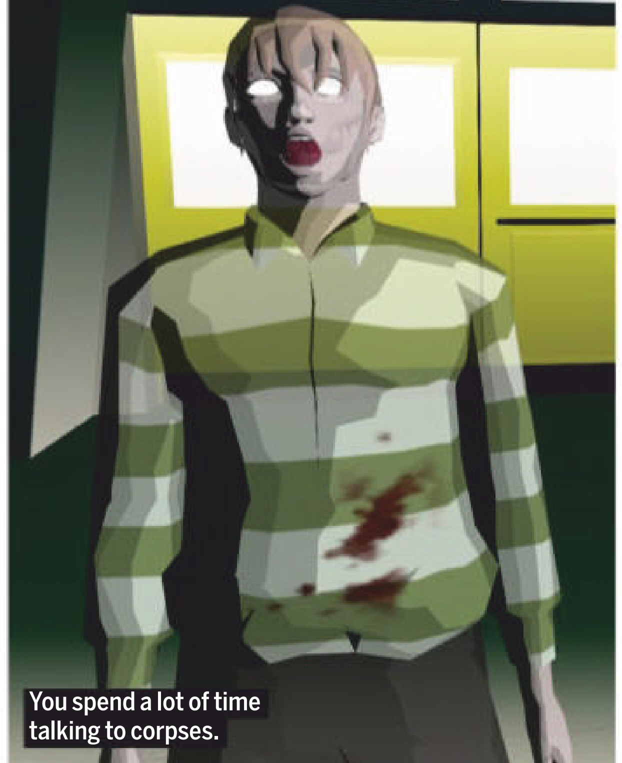


Garcian Smith can resurrect fallen characters.



Dan Smith, one of the seven hitmen you can play as.





You spend a lot of time talking to corpses.

SPLIT PERSONALITY

KILLER7 is a singularly weird Japanese shooter that makes its own rules. *By Andy Kelly*

Morrissey lyrics scrawled on a wall in blood. A talking corpse wearing a T-shirt with the word FUNKY printed on it. A gift received from a severed head in a washing machine. These are just a handful of the surreal and, at times, baffling things that you will encounter in *Killer7*, a notoriously bizarro PS2-era shooter from the minds at Grasshopper Manufacture, now finally available on PC.

It's difficult to pin down exactly what *Killer7* is. It has first-person shooting, third-person exploration, *Resident Evil*-style puzzles and a selection of characters with unique abilities. But it combines these familiar ideas in a way that is totally original – and, often, utterly confounding.

The story in *Killer7* is labyrinthine and dreamlike, and prone to frequent, baffling tangents. But the general idea is that you are Harman Smith, an elderly man who uses a wheelchair. Smith is able to conjure up seven different personalities, each with their own particular skills in combat.

Violence-loving Dan Smith is an ex-cop who wields a Dirty Harry-style revolver. Mask de Smith is a luchador who favours a pair of grenade launchers. Kaede Smith uses a scoped pistol and can reveal secrets by, er, cutting her wrists and bleeding on them. There are more to discover, but you get the idea.

One of the most curious design decisions in *Killer7* is that there's no freedom of movement or camera controls. The action is viewed entirely from fixed, dramatic angles, and your exploration is limited to holding a button to walk forward, and hitting another to turn around. This odd, on-rails system takes some getting used to, and can feel quite restrictive at times.

The action is viewed entirely from fixed, dramatic angles

But when you hear the eerie laughter heralding the arrival of an enemy, you pull out your weapon and switch to first-person, and are able to target them manually. You can't move while shooting, however, and many enemies have a habit of rushing you and exploding, which makes accuracy key.

NEED TO KNOW

WHAT IS IT?
A surreal Japanese shooter.

EXPECT TO PAY
£16

DEVELOPER
Grasshopper Manufacture

PUBLISHER
NIS America

REVIEWED ON
Core i5-6600K, GTX 1080, 16GB RAM

MULTIPLAYER
None

LINK
www.capcom.com/killer7

SHOT IN THE DARK

This combat makes up the bulk of the game. There are characters to speak to, those aforementioned puzzles, and an upgrade system, but despite its novel presentation, *Killer7* is a rather simple shooter. To the point where, if the story doesn't grab you, you might find it quite tedious. The stingy save points don't help in this regard either.

Give yourself to the game, adapt to its peculiar rhythm, and it's an experience like no other. The bold, visuals, disturbing music and general oddness of the storyline and dialogue are hypnotic. It combines stark comic book violence, Lynchian strangeness, and Japanese design sensibilities to compelling effect.

Killer7 is the kind of experiment that you're used to seeing come out of the present day indie scene, which makes it a perfect fit for a release on PC. It's a pretty basic port with limited graphics options, but you're not playing this for the tech: you're playing it for the *weird*. ■

PC GAMER VERDICT

Imaginative, beautiful, and utterly strange, but you'll need to really love the story to endure its idiosyncratic combat.



GET A GRIP

GRIP: COMBAT RACING is little more than a forgettable throwback. *By Natalie Clayton*

People fondly remember the big names of sci-fi racing from decades back. Bring up *Wipeout* or *F-Zero* to a certain generation and expect bleary-eyed flashbacks to searing speeds, lethal turns and thumping '90s electronic music. Fast-paced and deadly, for a time these games helped gaming feel 'cool'. But even 20 years on, *GRIP: Combat Racing* can't help but feel like a disappointing knock-off.

It's a throwback to the arcade-style racers that didn't stand the test of time. For Caged Element, it's 1999's *Rollcage* that's desperately needing a reboot two decades on, and that isn't exactly considered a classic today. *GRIP* is often able to evoke those better memories, as your four-wheeled machine tears through the side of a canyon to thumping drum-and-bass. But moments like this are scattered throughout a soulless, unpolished package.

The key here is that when going fast enough, cars will grip to any surface, leading to maps that flip from wall to ceiling to floor. It's often fantastic, and tumbling down one of *GRIP*'s many winding tunnels is great fun. But cars are too easily sent into dead ends. Maps feature many obstacles that stop players in their tracks, rather than leading them back on course. I have had to hit that restart button more often than not after a catastrophic crash.

> **Maps feature many obstacles that stop players in their tracks**

GRIP's a looker in a certain sense, loaded with motion blur and dramatic lighting. It's fine overall, but lacks detail or personality. We never see who's behind the wheel of these bonkers vehicles beyond faceless figures in cartoonishly drawn loading screens. Maps span a mix of biomes, but nothing you haven't seen before. Mountains, wastelands, forests, all scattered with sci-fi greebles. It's often exhilarating, if rarely inspiring, although the city maps fall flat as racers power down empty streets past featureless buildings.

NEED TO KNOW

WHAT IS IT?
A spiritual successor to 1999 PC combat racer *Rollcage*

EXPECT TO PAY
£25

DEVELOPER
Caged Element

PUBLISHER
Wired Productions

REVIEWED ON
AMD FX4130, GTX 650Ti, 8GB RAM, Windows 10

MULTIPLAYER
Up to ten players online, with four-player split-screen

LINK
www.caged element.com

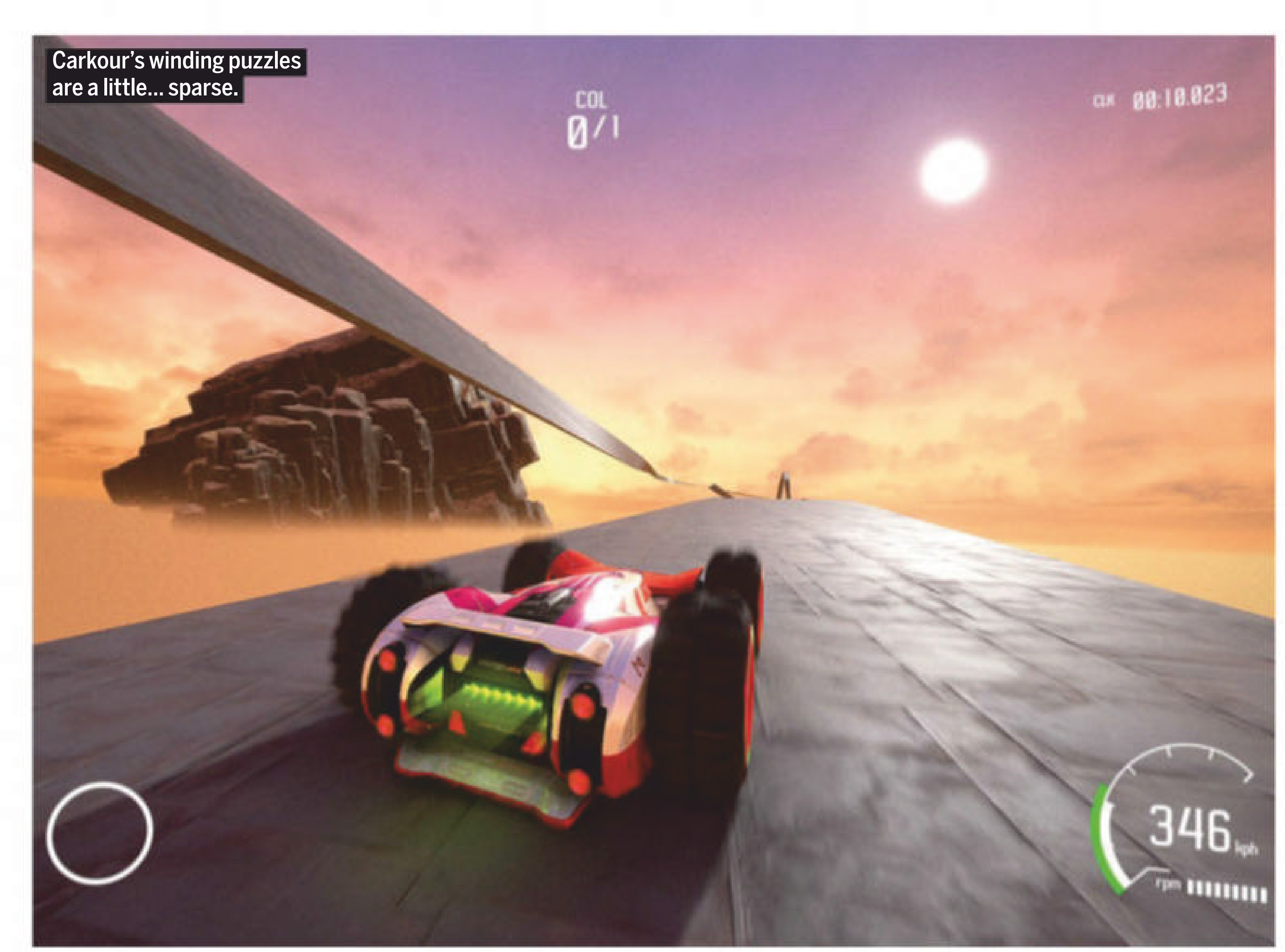
FALL FLAT

There's a lengthy campaign that unlocks new pickups, race types, vehicles and levels over time. It's plenty to keep coming back to, but it's all delivered so flatly. Combined with a janky UI, there's an overwhelming sense of cheapness. Still, it's fine if you're yearning for some arcadey racing. The Battle and Carkour (car parkour, get it?) modes are forgettable, but there's a competent variety of tracks and race modes to get your fill. *GRIP* simply needed to show that it could be more than a cover band performing a forgettable '90s track. ■

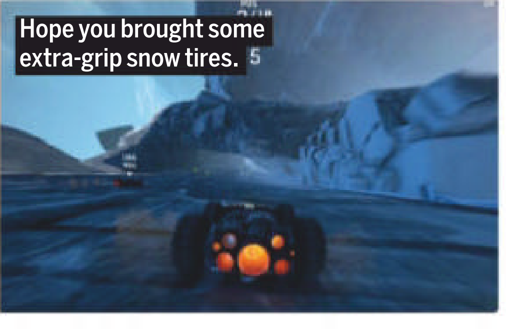
PC GAMER VERDICT

An agonisingly average combat racer that trades on nostalgia. It's competent, but lacking in style and substance.





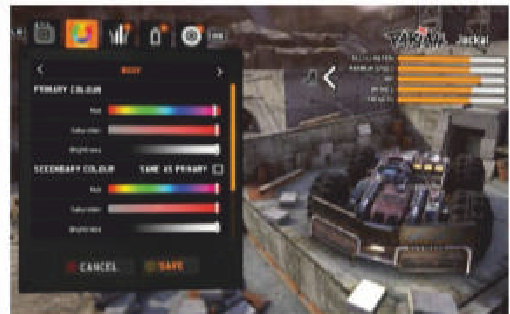
Carkour's winding puzzles are a little… sparse.



Hope you brought some extra-grip snow tires.

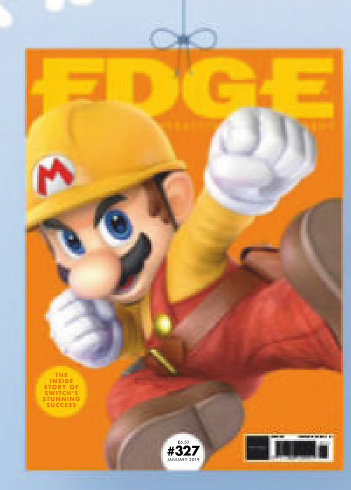


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WAR GAMES

BATTLEFIELD V takes us back in time to explore some of the lesser-known conflicts of World War 2. *By Andy Kelly*

B*attlefield V* opens with a solemn prologue in which you play as a series of doomed soldiers dying in increasingly horrible ways. Its intent, I presume, is to evoke the futility and horror of war. But it feels out of place in a game where you can wear a Union Jack gas mask, jump out of a plane in midair, land on your feet, then whack a Nazi over the head with a cricket bat.

Developer DICE can't decide if war is hell, or just cool as hell, which creates some wild tonal dissonance. The notoriously chaotic *Battlefield* is by no means an accurate approximation of a real, gruelling war, which makes a soldier's agonised screams of, "I wanna go home!" as he bleeds out just seem tasteless. The Swedish studio needs to own the fact that its game is a fun, silly, knockabout shooter, because that is what it does best.

In the thick of a firefight, with planes screaming overhead, tanks trundling by and sniper scopes glinting in the distance, *Battlefield V* can be exhilarating. The dense, detailed maps only add to the turmoil, particularly the post-apocalyptic Devastation, which is set among the shattered ruins of a bombed-out Rotterdam. With 64 players fighting together, few multiplayer games are this frenzied. And a welcome return to World War 2 brings back fond memories of the first wave of *Battlefield* games.

This chaos also results in some exciting, emergent moments that could almost be scripted setpieces, such as the Spitfire I saw flying too low and buzzing a church's bell tower, carving a hole in the side with its wing and leaving a trail of dust and rubble. But this can also work against it, and I've lost count of the visual bugs I've encountered: usually involving corpses getting stuck in scenery or flailing around like they're being reanimated by a necromancer.

This chaos also results in some exciting, emergent moments

BUILD IT UP

This is a series famous for its destruction, but now you can build things, too. Whip out your hammer and on certain parts of the map – usually around control points – you'll see the shimmering outline of sandbags, barbed wire and other buildable fortifications. Any class can build them and you don't have to harvest resources or anything like that, but the process is slow and leaves you open to attack while you wait for a meter to slowly tick up.

A good example of this is in the Aerodrome map, where the entrance to a large aircraft hangar can be plugged up with cover, Czech hedgehogs and other obstacles to make the lives of the opposing team more difficult. Some maps even let you dig trenches for your fellow troops to move safely through. It never feels like the outcome of a battle hangs on the construction of these fortifications, but they can really change the flow of a map.

Speaking of maps, it's a mixed bag, but some are among *Battlefield*'s best. Twisted Steel is the clear highlight: a vast, swampy map set in France and dominated by an enormous bridge, part of which has dramatically collapsed. Below the structure is a marshy forest for skirmishing in, but it's on the bridge itself where the most exciting firefights take place around the two capture points placed strategically at either end of it.

When the enemy team has control of the bridge, wrestling it back is a fun, satisfying challenge. Its elevated position gives snipers a vantage point from which to survey the swamp and buildings below, but luckily the bridge is strewn with rubble and flaming wrecks, providing enough cover for the opposing team to push through and claw back territory.

Arras is another great map: an expanse of French countryside covered in vivid yellow rapeseed fields. The open areas are perfect for vehicle skirmishes, while infantry can battle for control of the farmhouses and villages scattered around the area. Fjell 652, set in the mountains of Norway, is a lot of fun, too, particularly the control point situated among a scattering of cabins. Its exposed mountainside location makes for some hectic firefights, with opportunities for distant snipers and aircraft to make your life hell.

IN RUINS

Less successful is Devastation, the Rotterdam-based map I mentioned earlier. It's visually impressive and incredibly atmospheric, but the cluttered geometry and lack of clear, identifiable paths to each control point make it feel messy and poorly paced. Hamada, a large desert map, is »

NEED TO KNOW

WHAT IS IT?
A multiplayer-focused World War 2 shooter.

EXPECT TO PAY
£55

DEVELOPER
EA DICE

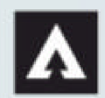
PUBLISHER
Electronic Arts

REVIEWED ON
Core i5-6600K, 16GB RAM, GTX 1080

MULTIPLAYER
Up to 64 players

LINK
www.battlefield.com

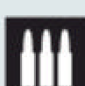
ROLE PLAY *The four classes at a glance*



ASSAULT
Good at
Killing lots of people up close, destroying tanks
Bad at
Hitting people from afar, surviving in the open



MEDIC
Good at
Bringing people back to life, healing people
Bad at
Staying alive, holding their own in a firefight



SUPPORT
Good at
Supplying ammo, laying down suppressive fire
Bad at
Keeping their gun under control



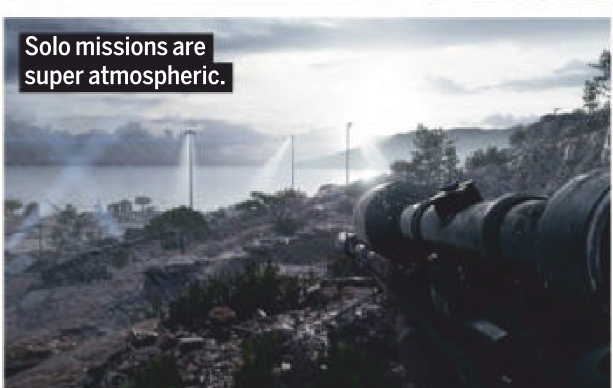
RECON
Good at
Spotting enemies, killing people from miles away
Bad at
Close quarters battles, playing the objective

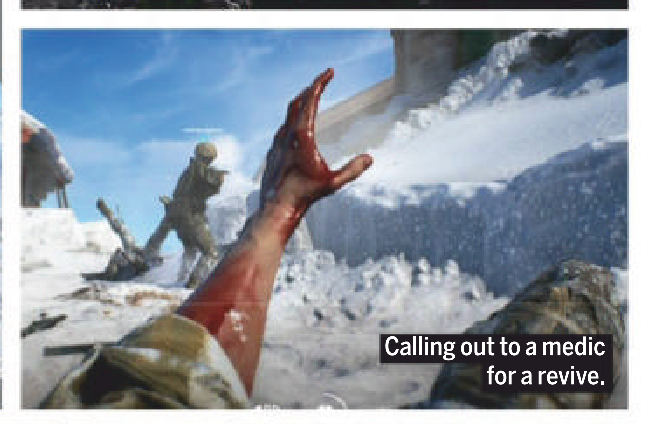


No game does chaos quite like *Battlefield*.



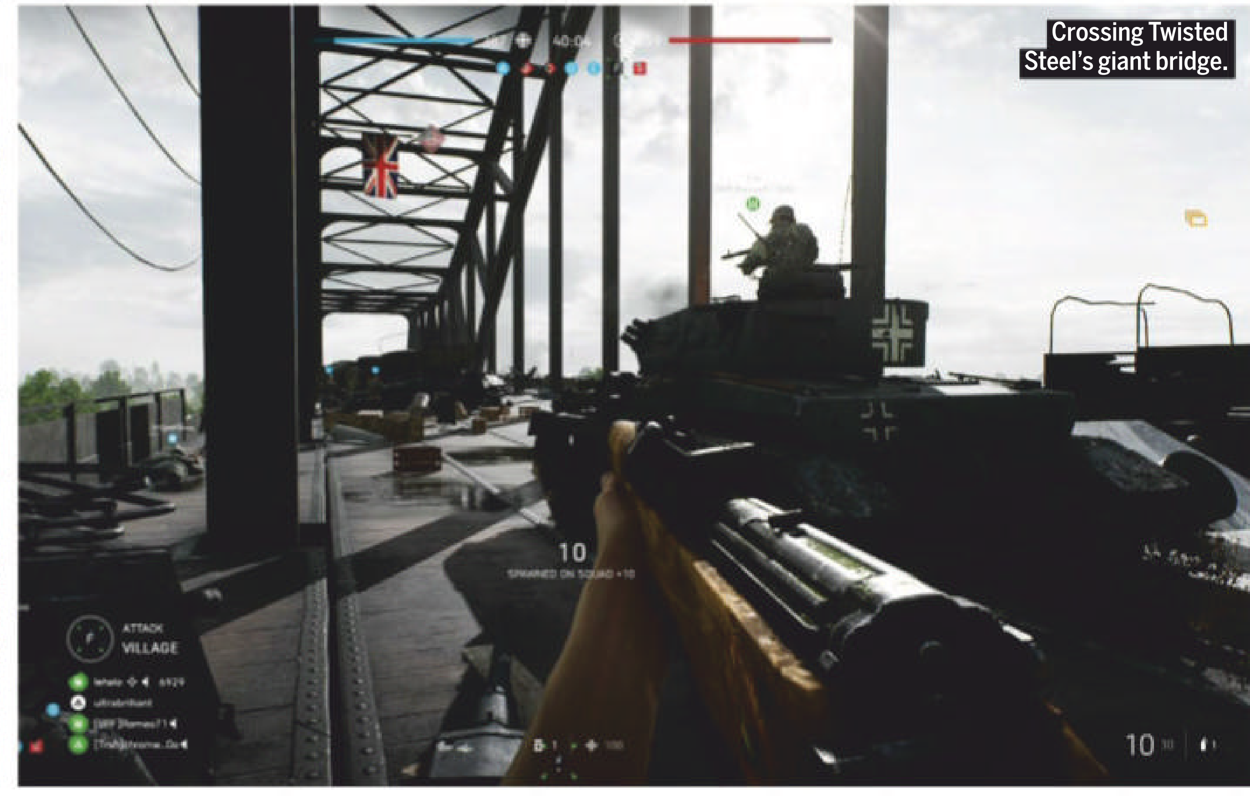
A good pilot can dominate a map.


Solo missions are super atmospheric.


Calling out to a medic for a revive.




The tanks are surprisingly flimsy.



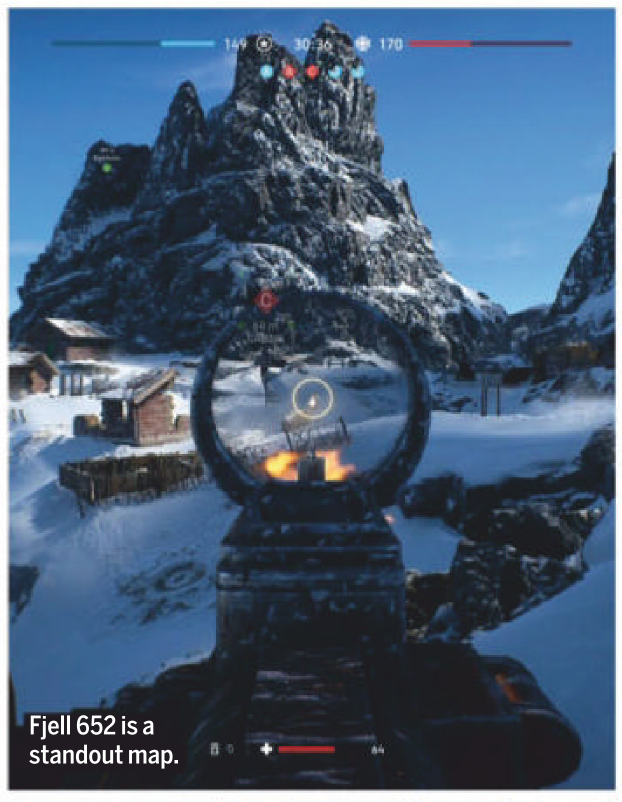
Crossing Twisted Steel's giant bridge.



The cathedral at the heart of Devastation.

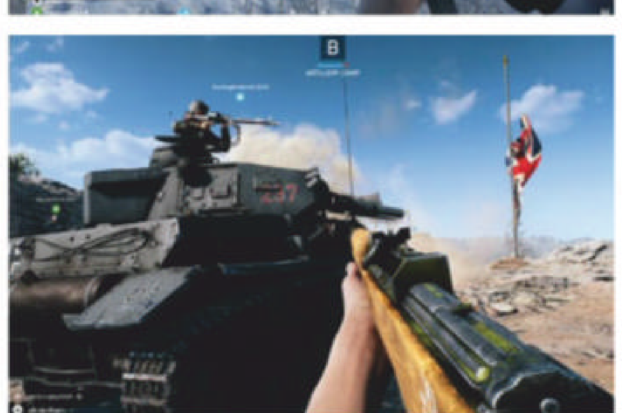


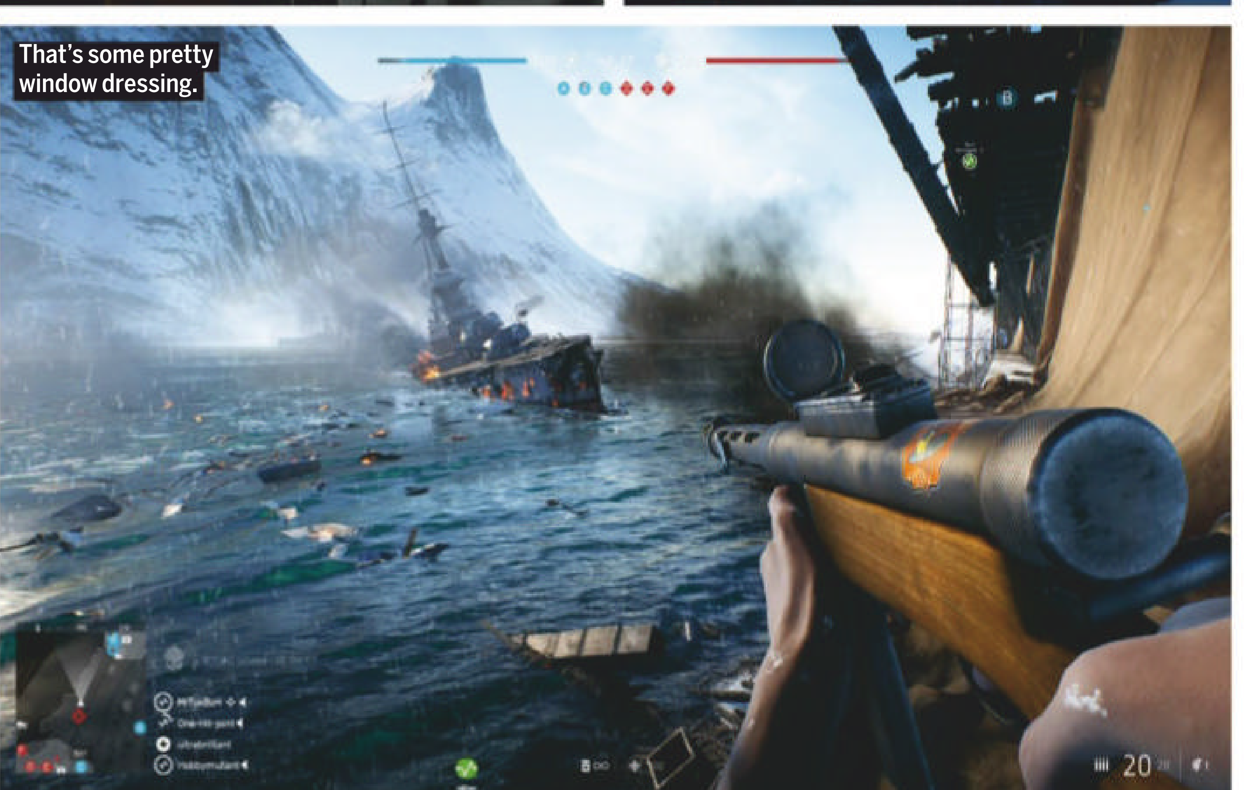
Make use of vehicles on big maps.



Fjell 652 is a standout map.


Frostbite does great snow.





That's some pretty window dressing.

great for vehicle combat, but the distances between control points and the generally increased time-to-kill in *Battlefield V* mean you spend a lot of time running back to where you died, and, if you're unlucky, being sniped by someone on the way.

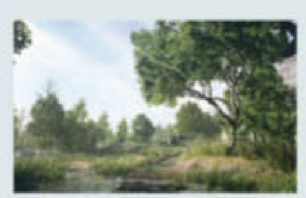
Narvik and Aerodrome sit somewhere in the middle. The former is based around a Norwegian harbour town, and except for a few memorably tense fights around an elevated train yard on the waterfront, nothing really sticks out about it. The latter is another big, open map ideally suited to vehicles and I only really found it interesting when both armies descended on the colossal hangar at the heart of the map. Ultimately, there are no *bad* maps in *Battlefield V*: just a few mediocre ones. And for an online-focused FPS at launch, that's pretty decent.

Squads are more important than ever in *Battlefield V*. Not only can you spawn on an ally if they aren't engaged in combat, but now non-medic characters can perform a 'buddy revive' on a fallen comrade. This is a lot slower than when a medic does it, but still invaluable in the final stages of a match. It also encourages squads to stick close together, as tempting as it might be to run off and test out your new sniper rifle. You can still leave your assigned squad and play as a lone wolf, but the game actively discourages it.

Another benefit of working in a team is that, when enough points are accumulated, the leader can call in a so-called Squad Reinforcement. These range from a fire-spewing tank to, best of all, a devastating rocket that can flatten a control point, killing anyone in the blast radius. The sound of the aircraft that launches it buzzing overhead is always nerve-wracking –unless you're the one firing it, of course. You can see the explosion from way across the map and pushing in with your fellow soldiers to take a point after one drops on it is always a thrilling moment.

Building on *Battlefield 1*'s Operations mode, Grand Operations are vast, themed battles that take place over three in-game days, loosely connected by a story that changes depending on the performance of each team. While *Battlefield* is often a good game to dip in and out of, you'll need to set a decent chunk of time aside – in some matches, as long as an hour – for these sprawling epics. Each day is objective-based, with teams attacking or defending key structures including giant artillery guns that players can fire.

GLOBAL SENSATION *The warzones you'll visit in* BFV



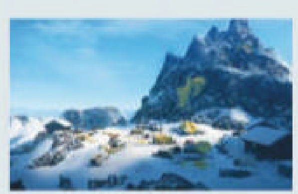
FRANCE
Maps: *Twisted Steel, Arras*
Rural France is a classic setting for a WW2 videogame, but *Battlefield* mixes things up with Twisted Steel, whose bridge DICE says is the biggest object it's ever built for a multiplayer map.



HOLLAND
Maps: *Rotterdam, Devastation*
Here you'll find two wildly different city maps: the mostly intact Rotterdam, and the decidedly not intact Devastation, which features the same city but after a German bombing.



NORTH AFRICA
Maps: *Hamada, Aerodrome*
This warzone is home to two of the most open maps in the game, which tank commanders and pilots will love. But be warned, infantry: you'll be running about a lot.



NORWAY
Maps: *Narvik, Fjell 652*
Both of these chilly maps are quite different – a remote mountain and a harbour village – but both have one thing in common: lots of bloody snow. It could even be the nicest virtual snow on PC.

I'm not sure about Final Stand, though. This tiebreaker round is triggered if both teams are evenly matched and there's no clear winner. Essentially playing out like the tense final minutes of a game of *Fortnite* or *PUBG*, respawns are disabled and surviving players are gradually pushed together by a shrinking play space. The last team standing wins the Grand Operation, which kinda negates your team's performance in the previous rounds.

Character movement has been altered to feel more physical

While *Call of Duty* has abandoned singleplayer, it's good to see DICE still making the effort. War Stories is a series of solo missions with lavish production values and melodramatic cutscenes, set in lesser-known corners of WW2. The missions have an open structure, with multiple objectives that can be completed in any order, but there are still a lot of moments where it's clear you're playing something heavily scripted.

SKI SUNDAY
Nordlys, set during the German occupation of Norway, is the best, following a resistance fighter as she fights behind enemy lines. The environment design is stunning and skiing between locations is fun. Overall, War Stories is more interesting than *CoD*'s shallow, linear meat grinder campaigns and boasts some genuine spectacle, but it's not worth buying the game for. Online is still the reason *Battlefield* exists, but these missions are well made and a worthwhile addition to the game.

While the flow of the action in *BFV* is almost identical to the last few games, character movement has been altered to feel more physical – and I'm not a fan. This is most notable in the disorientating animations that play when entering/exiting vehicles. Previously you'd just appear in a vehicle, which was a little illusion-shattering, but basically fine. Now, though, you have to watch as your guy slowly, painfully climbs in or out, with the camera flipping all over the place. I get what they're going for, trying to make you feel more connected to the world, but it just isn't as fluid as it should be.

Here's the thing, though: *Battlefield V* is gonna change, a *lot*. DICE is addressing community complaints such as bombers being overpowered, as well as planning new modes including its inevitable take on the battle royale genre, Firestorm. There's also a new tank-focused singleplayer mission, The Last Tiger, on the way in December. In a year this could be a much better, deeper richer experience, but for now it's just a very good *Battlefield* game with a few great maps and plenty of those moments of beautiful chaos that have come to define the series. And sometimes that's all you need. ■



PC GAMER VERDICT

As exhilarating as *Battlefield* has always been. Just don't expect a dramatic reinvention of the series.



STORY TIME (AND SPACE)

A rich life sim, **RIMWORLD** doesn't quite reach the stars. *By Sam Greer*

R*imWorld* is a life sim about establishing a colony on a remote planet. Things go wrong, the unexpected occurs and your colonists react. Each has drives and needs, ones that are often unhelpful to the mission but which are intended to make them more complex characters. Go in wanting to build a neat utopia and you'll likely be frustrated. Welcome the storytelling potential of disaster and you'll have a much better time.

Your colonists are the main drive behind the game. When you begin a scenario you have to select your team and they'll be generated with traits and backgrounds. Some are helpful skills, like hunting or teaching, and some are there to inject personality. There's a lot of promise in the ideas these characters bring to the table. I had a colonist who, chronologically, was 114 years old, but, thanks to the complications of space travel, was really only 24. The son she'd left behind was approaching his 50s. Her granddaughter was 31.

There are some peculiar aspects to this approach to character generation, though. Each character gets three traits, things like obsessive, lazy or even misogynist. One of the modifiers is 'gay' but 'straight' isn't – that's just the default, which is painfully heteronormative and outdated for a game about the far-flung future. It also feels odd to have some traits sat alongside each other. 'Misogyny' next to 'ugly', 'hard working' next to 'psychopath'. These things are not alike but are placed with equal importance.

While the system gives evocative combos like a bounty hunter who's lazy and vegetarian, in the end, they all interact in broadly the same way. They don't speak, in text or otherwise, and so the facets of their identity are declared in a character sheet that's offered to you through a drip feed of tiny updates.

> **Things become more complex and varied the longer a colony survives**

The main issue with the game's approach to character is that it treats people as the sum of just a few parts. It's not unreasonable that a game of this scale needs to have a simple system to generate its characters, but the end result is AI that behave in interesting ways but never feel like real people. As long as you're able to look past that and just enjoy the odd behaviour of these robotic colonists then there's still fun to be had with the unique sandbox.

Once you're down on the ground it's all a matter of laying out tasks for your colonists. You don't get to take control so must instead lay down blueprints and zones, and stack up tasks for them to complete. The UI is a bit lacking. It's fine after enough time but far from intuitive and full of irksome inconsistencies like being able to mass-select some objects but not others. Going through an entire field of potato plants to order each of them to be harvested is the kind of busy work that feels needless.

The real fun stuff occurs once you've got a competent colony built and can begin to watch your colonists deal with all manner of scenarios. Rivalries develop, in-fighting can happen and that's all before you take into account factors like a random faction sending a hunter to my colony with the sole purpose of murdering my dog. The longer you survive, the more bizarre the events. Mind controlling drones and mythical beasts all show up. *RimWorld* thrives when it's at its most unpredictable, never letting you get too cosy.

WAITING GAME

Waiting for your colonists to build or explore is what the vast majority of your time with the game amounts to, especially early on. Things become more complex and varied the longer a colony survives but still, so much waiting around occurs. In that dullness you can't help but begin to see the gears in the machine. Interesting things happen but when the characters already feel so artificial they rarely take on the life required to make me believe in the stories unfolding. I'm not watching a drama but a chaotic petri dish. Which isn't to say it doesn't have its moments or there isn't fun in its failure to tell engaging stories, but it doesn't live up to its promise. ■

NEED TO KNOW

WHAT IS IT?
A management sim that attempts to generate character-driven stories

EXPECT TO PAY
£27.80

DEVELOPER
Ludeon Studios

PUBLISHER
In-house

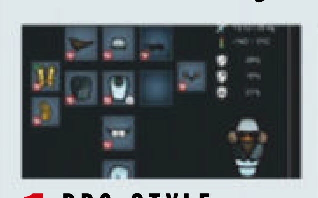
REVIEWED ON
Core i7-4790K, GTX-970, 16GB RAM, 64-Bit Windows 7

MULTIPLAYER
None

LINK
www.rimworldgame.com

MODIFICATION IN MODERATION

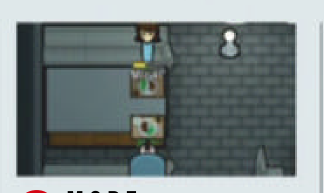
The best mods from Steam Workshop for improving your experience



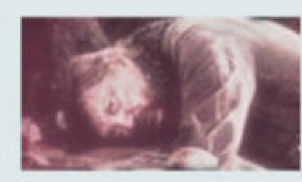
1 RPG-STYLE INVENTORY UI
A vastly better way to manage the gear of your colonists.



2 INTERACTION BUBBLES
Essential, it shows colonist interactions on-screen as they happen.



3 MORE FURNITURE
Cosmetic mostly, but helpful to make a colony feel more like a home.



4 MARVIN'S UGH YOU GOT ME
Stops in-fighting leading to fatal outcomes, if you want sensible colonists .

PC GAMER VERDICT

An imaginative colonisation simulator with some dated ideas and a weak character generator.





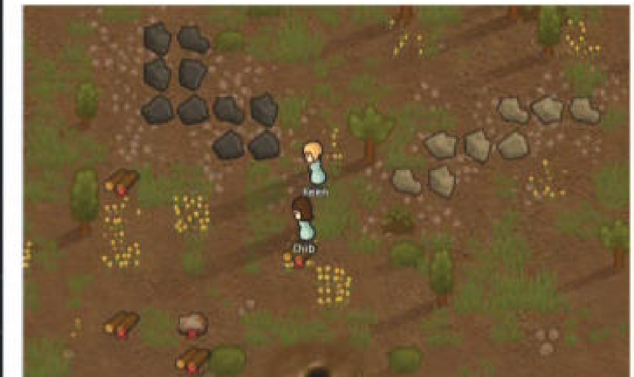
Meeting other factions can lead to the game's best surprises.



Choosing a storyteller is key to making the game work.



The game will start you with resources on easier modes.




The hardest mode features a lone, naked colonist.


Be a monster by hunting sleepy docile animals.



Keeping track of interactions isn't as easy as it could be.

ABYSSMAL

UNDERWORLD ASCENDANT is a disappointing mess unworthy of its Looking Glass heritage. *By Rick Lane*

There's no way to sugarcoat this, *Underworld Ascendant* is phenomenally bad, a catastrophic mess of poor design ideas, woeful execution and bugs the size of buildings. It's difficult to fathom how OtherSide Entertainment, a studio that is headed by veteran Looking Glass Studios designers – founder Paul Neurath alone worked on *Thief: The Dark Project* and *System Shock 2* – ever allowed it to ship in this state.

You, a dyed-in-the-wool RPG hero known as the Ascendant, are chosen by a spirit named Cabirus to bring down the evil god Typhon. Achieving this boils down to locating seven Abyssal Keys to unlock a door, while uniting the game's factions in the process.

The world is divided into seven large, semi-open levels that are 'connected' via portals. You take on 'missions' for the game's factions via a notice board in the hub. There are roughly two main missions per level, along with tons of sidequests generated by the factions. You can only take on one mission at a time, which means returning to the same levels over and over.

As you'd expect from a team with Looking Glass heritage, *Ascendant* encourages creative problem-solving. It features skill trees themed around the familiar warrior, mage, rogue trinity, while also emphasising simulation. For example, you can use fire to burn doors, or disable a trap by shooting a lever with an arrow.

Sadly, things look iffy from the off. The visual design of *Ascendant* is questionable. Environments are passable but in-game objects are weirdly chunky and soft-edged. Character design, meanwhile, ranges from cartoonish to plain awful.

More problematic is the feel. Movement is sludgy and imprecise. Combined with simplistic animations, the result is severely underwhelming combat. Hence I played using a blend of stealth and magic. I was intrigued by the creative potential of the magic system, where you combine runes in your hands to 'discover' different kinds of spells.

The experience is broken. I encountered astonishing glitches

Sadly, my arcane ambitions were thwarted by the fact that *Ascendant* doesn't tell you what a new spell does. It just labels it 'New Spell', fine if the effect is obvious, but less useful when you must also figure out what targets the spell will affect. Further compounding my wizarding woes was a bug that meant *Ascendant* forgot which spells I had learned.

Magic isn't the only obtuse system that *Ascendant* lumbers itself with. The game doesn't feature a standard XP system. Instead, you unlock skill points by performing 'Feats' – in-game achievements. But you have no indication of what might constitute a Feat, so unlocking points boils down to luck. Mercifully, this issue was irrelevant for me because of another bug that frequently gave me points for feats I had already achieved.

DOOMED

One system that isn't buggy, and is instead stupid, is the Doom counter. This tracks how close Typhon is to unleashing his fury on the Abyss. As the counter ticks up, the landscape starts to become covered in lava-spewing fissures. And the spawning of these fissures is random, meaning they appear in the most incongruous of places.

The experience is broken. I encountered some truly astonishing glitches: overlapping textures strobing out, walls improperly lined up exposing the empty skybox, and more. The deeper I descended, the more surreal it got. In one level, I pulled a lever attached to a trap and the trap just vanished. In another, a castle glitched in and out of existence as I adjusted my perspective.

The developers are working to fix the bugs, but *Ascendant*'s flaws run far deeper than even the most spectacular gremlins I ran into. I'm yet to mention the save system, which has you plant a tree in the ground to create a spawn point, while the actual save system only maintains your progress from the start of a mission. How could that possibly seem like a good idea to anyone?

I'm fascinated to know what happened with this project, why it's gone so horribly wrong. Looking Glass games were always a little wonky, but they made up for it with character, ambition and innovative design. *Ascendant* has none of these things. It is, put simply, a disaster. ■

NEED TO KNOW

WHAT IS IT?
A fantasy-themed immersive sim.

EXPECT TO PAY
£25

DEVELOPER
OtherSide Entertainment

PUBLISHER
505 Games

REVIEWED ON
Core i5 3570K, GTX Titan, 16GB DDR3 RAM

MULTIPLAYER
None

LINK
www.underworldascendant.com

BUG LOOTING

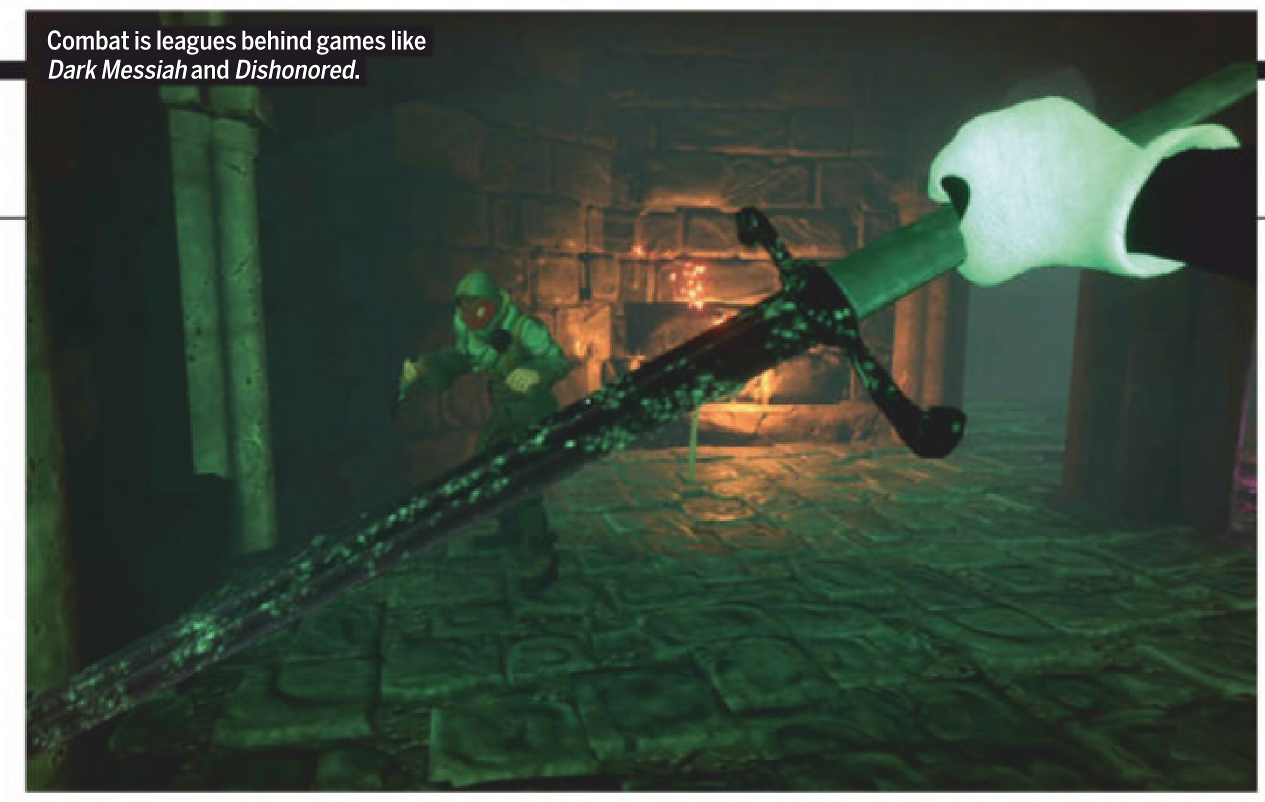
There are dozens of bugs in *Underworld Ascendant*, ranging from common glitches to legendary game-breakers. Here's our guide to the best of the worst glitches.

	Common	Rare	Epic	Legendary
Conflicting textures	✔			
Unaligned walls	✔			
Moving corpses		✔		
Forgotten spells			✔	
Disappearing arrows			✔	
Whiteboxing castle				✔
Dancing chains		✔		

PC GAMER VERDICT

Riddled with bugs and bizarre mechanics. This is a bafflingly poor debut from OtherSide Entertainment.

25


Combat is leagues behind games like *Dark Messiah* and *Dishonored*.

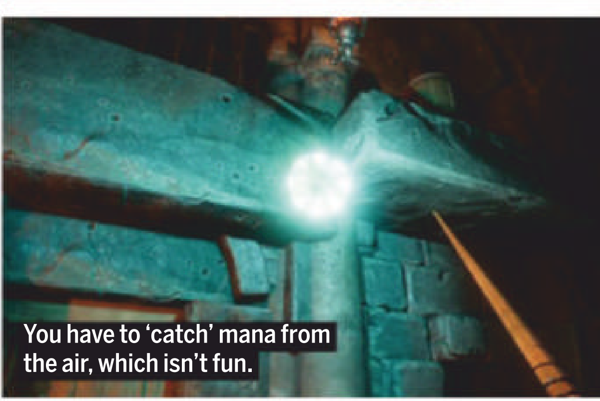


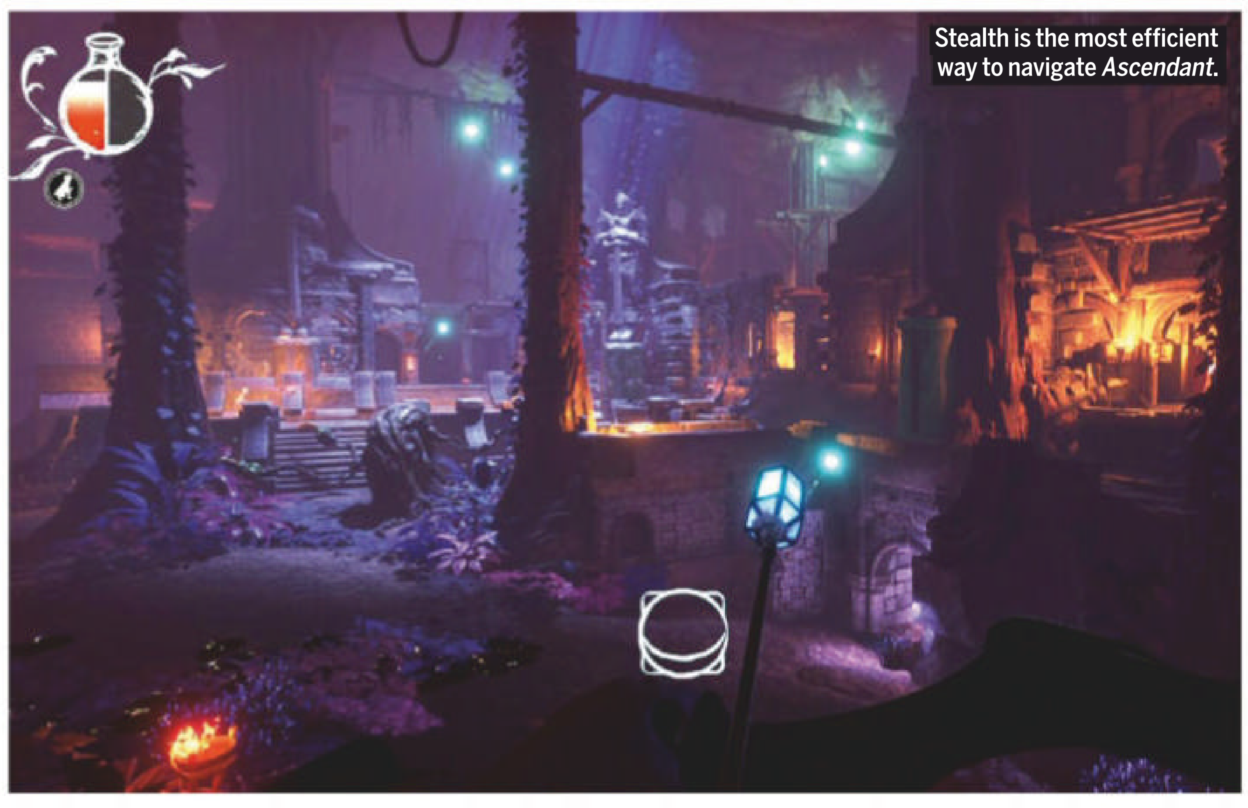
My eyes!



The bow is the best weapon in the game by far.




You have to 'catch' mana from the air, which isn't fun.


Stealth is the most efficient way to navigate *Ascendant*.

MUTATION NATION

Bethesda changes its formula, but not for the better, in multiplayer RPG **FALLOUT 76**. *By Chris Livingston*

Valley Galleria is a rotting mall in *Fallout 76*, and one of the most eerie and unsettling places I've ever visited in a game. It's dark and spooky, with cheery music still faintly echoing through the decaying halls. This place scares the crap out of me. I immediately drop into a crouch, terrified of the horrors I might find inside. I have a quest to complete, but right now I'm too nervous to crabwalk more than a few feet at a time.

Cut to a few minutes later, and I'm jogging briskly through, my fear completely gone. Turns out the mall was filled with Scorched, *Fallout 76*'s less-interesting version of raiders, the same enemy type I've been killing since I first stepped out of the vault. *Fallout 76* is a lot like Valley Galleria. It's a fantastic and evocative setting for a game, but the novelty of its sights disperse quickly and you're back to following quest markers and absentmindedly killing the same monsters, again and again.

25 years after the nukes fell, Vault 76 opens and you step out into post-apocalyptic West Virginia. You're not alone: the other two dozen players on the server represent the only living humans in what's left of Appalachia. The rest of the population are dead, or robots or monsters, meaning your quests come from notes, diaries, a few talkative bots and holotapes. There's a lot of strong worldbuilding, explaining how the factions were established and began to war against each other. There are interesting personal tales to be discovered and pieced together, too, and mysteries to solve. I investigated a child abduction cold case, I joined a secretive costumed crime-fighting guild and nosed around in the inboxes of politicians and businessmen.

There are interesting personal tales to be discovered

Sometimes I miss talking to NPCs as in singleplayer *Fallout* games, and the fact that everyone is already dead detracts from the drama and urgency. But in most cases I'm perfectly happy reading the history of the region, its conflicts and the trials and tribulations of its former population.

RECLAMATION DECLARATION

When first stepping out of Vault 76 you're in a heavily wooded mountainous region where the buildings are gently rotting but not completely devastated by nukes. The further out you travel, the harsher and deadlier the world gets, from the chemically blasted lands up north to the toxic air of the mining and industrial zones in the south. Cranberry Bog, overgrown with oppressive plant life and foggy swamplands, feels completely otherworldly, separated from the rest of West Virginia by the Savage Divide – a war-torn strip of land filled with angry robots and growling molemen.

Along with major points of interest like the robot-staffed Whitespring Resort, the remnants of a crashed space station and the devastated capitol building, there are plenty of small but fun locations to uncover. A lot of effort has gone into making this human-free world an interesting one, and it is: nearly every excursion I make leads to some fun or gruesome or interesting discovery. As quests and exploration move you back and forth across the map, though, repetition begins to set in. Infiltrate a building once and it's fun to wipe out all the monsters inside. Visit it again later, sometimes just minutes later, and it will be repopulated. Even the best locations lose their wonder as a result.

At least there are a few rarer monsters, like the mythical mothman, the wendigo, the flatwoods monster, and that awesome big-ass hermit crab who uses a truck for a shell. Their infrequent and often startling appearances, and the fact that they do more than just run at you, are a welcome relief to the unending parade of common enemies.

Combat is largely unchanged from Bethesda's previous *Fallout* games. It's still chaotic, and it's still a hoot blasting mirelurks in the face with a .50 cal machine gun, laying a trail of proximity mines down and watching them eat away at a charging deathclaw's health, or throwing a grenade that detonates near a wrecked car, which explodes into a mini-mushroom cloud and sets off

NEED TO KNOW

WHAT IS IT?
An open world multiplayer RPG.

EXPECT TO PAY
£45

DEVELOPER
Bethesda

PUBLISHER
In-house

REVIEWED ON
Core i5-6600K, GTX 980, 8GB RAM

MULTIPLAYER
Up to 24 players

LINK
www.bit.ly/fallout76pcg

POWER PERKS *Here are some fun perk cards to watch out for*

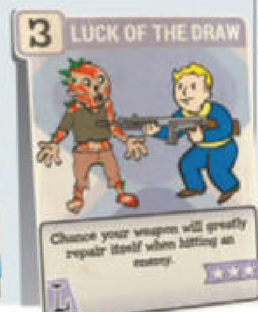
LAST LAUGH
Drop a live grenade when you die. It's both funny and useful!



GHOULISH
You're gonna be full of radiation anyway, but now it restores your health.



LUCK OF THE DRAW
Your gun might repair itself when you shoot someone.



MYSTERIOUS STRANGER
He's back, and will randomly save you when you use VATS.



GOOD DOGGY
Face it: you're gonna be eating a lot of dog food. Now it's triple the nutrients.



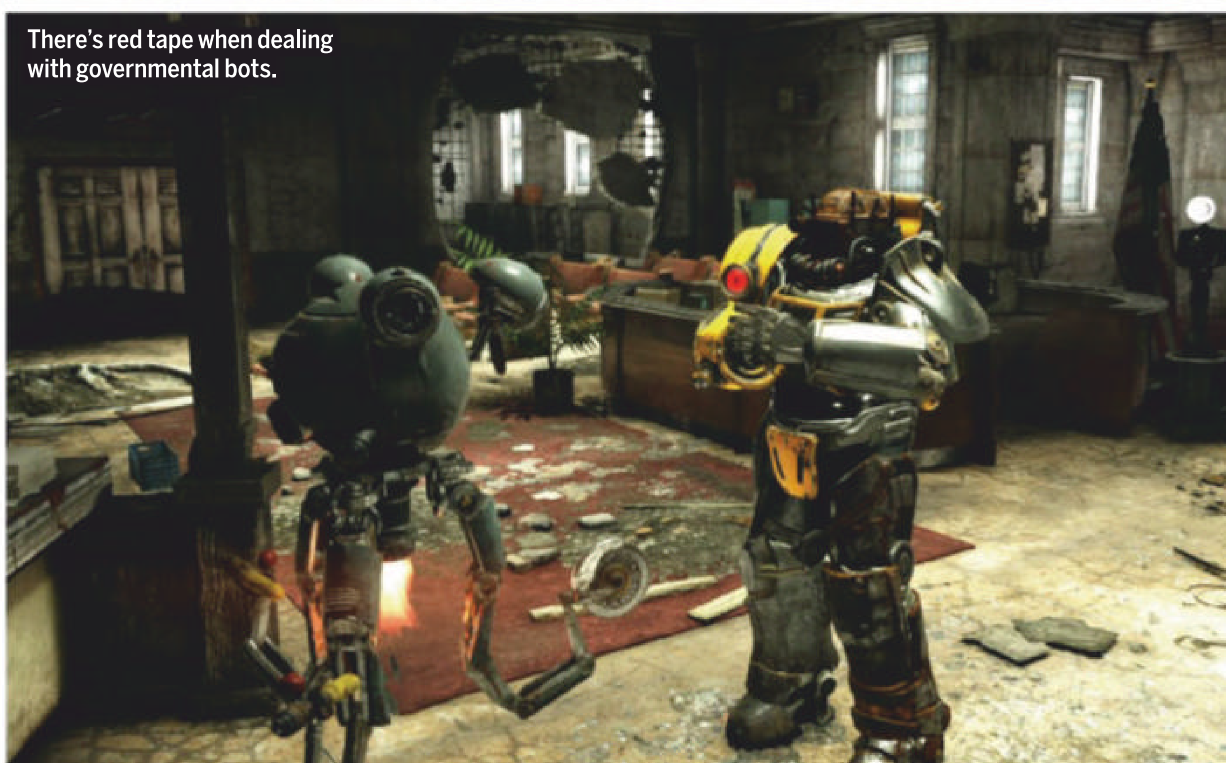

There's always time for music.




Kids draw the darndest things.



Killing the same mobs over and over gets old quickly.

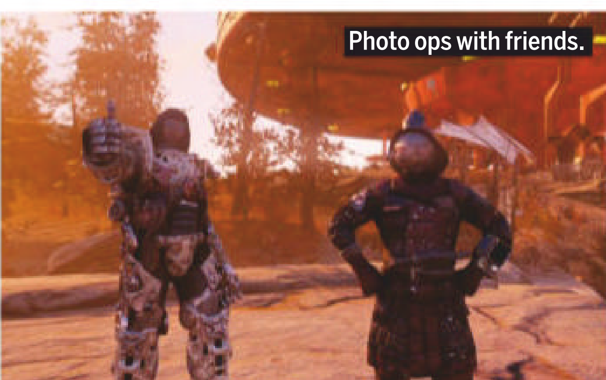

There's red tape when dealing with governmental bots.




The wendigo is a tough and disturbing enemy.


You can build a base that's only online when you are.




Photo ops with friends.


Meet, trade, or fight with other players.





Mothman is rarely seen, but he's often watching you.

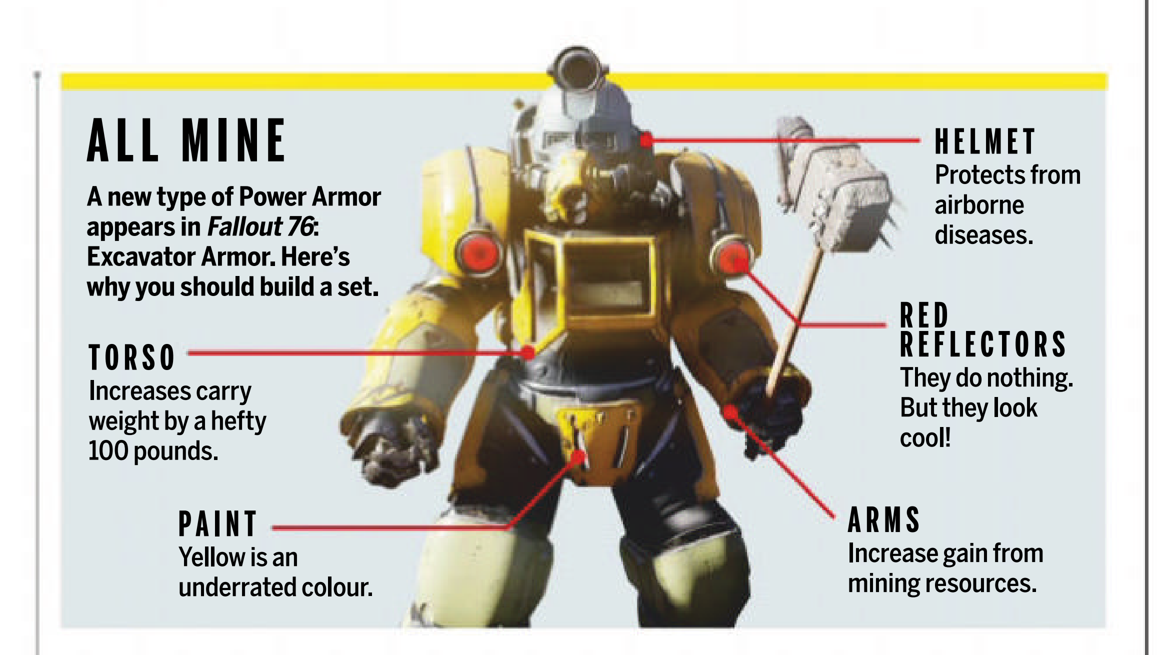
four other cars. The main difference is VATS, which ditches the slow motion effect, but is still useful for precise, long-range shots.

I have a black powder rifle I'm completely in love with: it takes forever to reload, but the lead balls it fires take down most enemies with a single shot and the cracking boom when I fire it outdoors rolls over the landscape for what feels like an entire minute. Weapons need attention, though. They degrade and break, as does your armour. There are workbenches scattered over the map, and you can build your own benches at your movable camp. All this tinkering can get a little tiresome when you're just a couple units short of screws, springs or aluminium, forcing you to go searching for more. But as your crafting skills grow and you unlock more recipes, it becomes a joy to cobble together weapons from scratch and upgrade your gear.

FRENEMIES

I've played a lot of *Fallout 76* solo, which is mostly doable with the exception of public events designed around groups and the occasional blunder of winding up toe-to-toe with a powerful monster. I've also teamed up with pals and strangers, and not only is it a fun way to explore and fight, it doesn't stop you from going your own way. Being on a team doesn't mean you need to be your partner's constant wingman: you can spread out as far as you like, and quickly rejoin them via fast travel when you want. This casual approach to co-op makes *Fallout 76* a great hangout experience, a way to play solo and in a group at the same time.

You can also fight other players, but standard PvP is watered down. Shooting another player barely hurts them at all unless they deliberately engage in combat, so both players essentially have to agree on the battle before it begins. It's an okay solution to the griefing problem, but that's a problem Bethesda created itself by not providing PvP and PvE-only servers. You can also instigate combat with someone by claiming another player's public workshop, but in my 50 hours of play no one has ever tried that with me. When I spent an afternoon doing nothing but claiming owned workshops, only once did the owner show up to defend it. The only loot gained after killing someone is the junk they've collected, which isn't hard to replace, and with such low stakes few players seem to even bother with PvP.



Bounty hunting, however, provides an ideal PvP mode. Players can become wanted when they repeatedly attack someone who doesn't defend themselves, or when attacking another player's base. When a player is wanted, their location is displayed on the map but they can't see anyone else's location. The bounty grows the longer it's unclaimed, adding financial stakes, and stalking and hunting real players instead of just predictable AI enemies adds a lot of tension. The only issue with bounties is that it's relatively rare to find anyone willing to become an outlaw in the first place. Shame, because it's one of my favourite parts of the game.

> **I've had to retrain my fingers to learn the awkward control scheme**

TERMINAL ILLNESS

Fallout 76's menus, since they've been designed for controllers and consoles, are awful to navigate on keyboard, and this being a *Fallout* game with inventory management, base building, crafting and trading, I've had to retrain my fingers to learn the awkward control scheme. Sometimes you can scroll with the mouse wheel, sometimes you can't. Some menus are closed with escape, some with tab. Custom keymapping is incomplete, and multipurpose keys aren't well thought-out. R is reload but it's also used to transfer inventories between the player and a container, and when enemies die they instantly become containers. Numerous times while trying to reload during a fight with ghoul mobs, I've pressed R only to open the inventory of the nearest dead ghoul rather than reload my shotgun.

At the time of writing, basic features, like the option to disable motion blur or depth of field settings, are missing from the menu and require the editing of ini files. There's no text chat, a complete hindrance for deaf or hard of hearing players and discouraging for those who just don't want to speak over their microphones. Bethesda has begun to address some of the PC version's issues and says push-to-talk and ultrawidescreen support are coming soon, but it's hard to understand why they weren't included to begin with.

I've gotten inconsistent performance out of *Fallout 76* when playing with a Nvidia GeForce GTX 980 at 1920x1080. Certain busy areas run beautifully, others turn *Fallout 76* into a slide show, even after a recent patch to address framerate hitches. There are also plenty of bugs: quest markers not showing on maps or pointing to the wrong spot, broken animations, AI misfires, poor enemy pathfinding, and more.

Despite the considerable issues with the PC version, I've still had long stretches of fun with *Fallout 76*. The world retains a lot of what I love about Bethesda's previous RPGs, with finely crafted environments, enjoyable weapons and crafting, and surprising little scraps of story to uncover and investigate. Like Valley Galleria, though, it doesn't take long to for the shine to fade. ■

PC GAMER VERDICT

A beautifully crafted but ultimately repetitive world, and a disappointment when it comes to options on PC.



ROUGH RIDERS

Battle the Seven Deadly Sins, and the camera, in **DARKSIDERS III**. *By Samuel Horti*

Fighting small groups of demons in *Darksiders III* feels special. Fury, one of the Four Horseman of the Apocalypse, is nimble and responsive, dodging blows and swinging weapons in flashy arcs of magic. I love her electric lance, which fizzes with every strike. But the clunky lock-on camera makes fighting large groups frustrating, and platforming and puzzling feel lightweight. It's been six years since the last *Darksiders*. This is not the return I'd hoped for.

The Charred Council have tasked Fury with stopping the apocalypse by defeating the Seven Deadly Sins. To reach those bosses you'll travel a semi-open world, plough through enemies, solve puzzles and navigate platforming sections.

The grunts are impressively varied: demon children chuck toxic goo, winged angels summon clones and four-armed brutes hide behind steel shields. Pitting their unique abilities against Fury's fragility – she'll go down in three heavy strikes – means you have to fight with caution, noting attack patterns before diving in.

I enjoyed this approach when facing four enemies or fewer. The left trigger locks the camera onto a foe, and you can switch targets by flicking the right stick. Dodge as an enemy swings and you'll trigger slow motion, setting up counters that you can combo into other moves.

But when you fight multiple enemies the camera doesn't play along. Enemies to your back or sides often jump in from off-screen and hit you in one movement. A marker warns you when that's going to happen, but keeping track of these, the enemies in front of you and ranged attackers is too much, and I felt like I was wrestling with the lock-on to focus on the right target.

> **The lack of proper loot gives you less reason to poke around**

Bosses are inconsistent. One-on-one battles are a breeze: learn the pattern, dodge at the right time and counter-punch. But bosses that summon minions, like the giant bug Sloth, are trickier.

The Sins draw on familiar tropes – underwater sea monsters, giant bugs, a huge man in fire armour – but they all have different quirks that stop them feeling boring. Sloth, for example, sits on a throne carried by smaller bugs, directing his army. Chip away his health bar and he'll jump out of his seat, swinging a giant club.

He's also wonderfully sarcastic and has a cutting tongue – more than can be said for most of the cast. I caught glimpses of the corniness that drew me to the first two games, but *Darksiders III* tries to take itself too seriously. Fury changes too much, and too suddenly, for it to feel like a natural arc, which makes it hard to care when you come to the finale.

NEED TO KNOW

WHAT IS IT?
A hack-and-slasher with big boss fights, puzzles and platforming.

EXPECT TO PAY
£45

DEVELOPER
Gunfire Games

PUBLISHER
THQ Nordic

REVIEWED ON
Core i7 8750H, GTX 1070, 16GB RAM

MULTIPLAYER
None

LINK
www.darksiders.com

WHIPLASH

Outside of combat, puzzling and platforming are underwhelming. You'll be whip-swinging between conveniently-placed metal bars a lot, which offers little challenge. Puzzles are better once you have to combine powers in quick succession. In one, I used my force power to knock a beam around, following up with stasis to freeze it in place when it was positioned for me to use as a swinging anchor point.

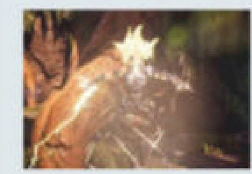
Environments also improve as the game goes on. For the first four hours I was stuck squashing bugs in generic sewers, but above ground it's very pretty. I fought demons on a highway, in underwater ruins, and in a broken city. I also like the flexibility in the order you can face some of the Seven Deadly Sins, too. Your compass tells you the nearest one, but you can backtrack and explore to find others.

Sadly, the lack of proper loot gives you less reason to poke around. Side paths yield resources for upgrades, but you're just bumping up damage output and there are only a handful of unique enchantments to slot into weapons, such as one that heals you as you deal damage.

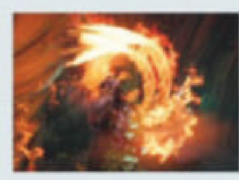
Darksiders III leans harder on its combat than previous games. And while Fury packs a punch, the wonky camera makes fights more frustrating than they should be. It doesn't condemn *Darksiders* to oblivion, but it's the low point of the series so far. ■

THE SOUND AND THE FURY

Fury finds four hollows throughout the story, each unlocks new abilities



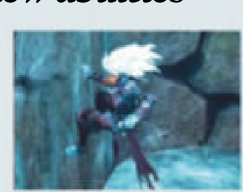
STORM HOLLOW
Fury wields an electric lance and can glide in a buzzing storm field, which is useful for bridging large gaps.



FLAME HOLLOW
Lets you walk through fire, burn cobwebs to open passages and reach greater heights than normal via a flame jump.



FORCE HOLLOW
Grants you powers to move heavy objects, curl up into a ball to roll along crystal tracks and walk on the floor of lakes.

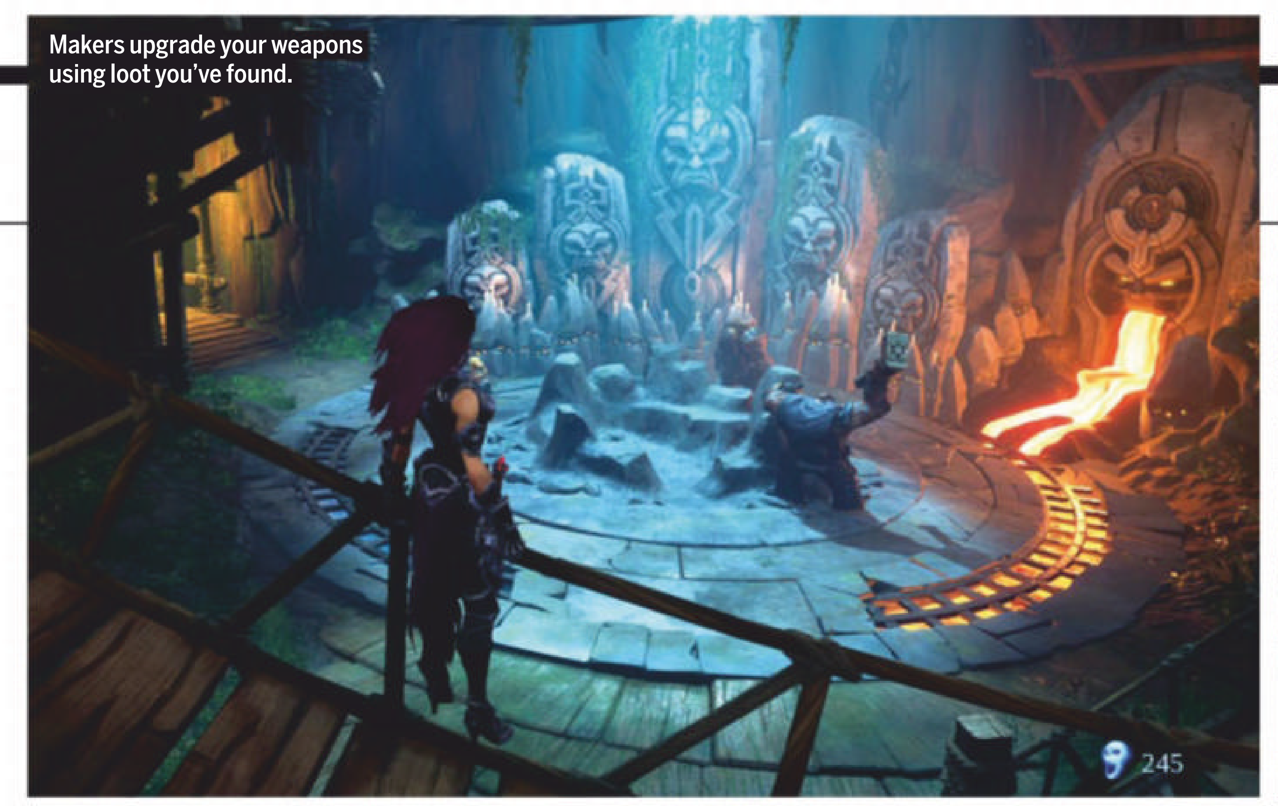


STASIS HOLLOW
Freeze any water you step on, stop objects in their tracks and slow enemies. It forms the basis for a lot of late-game puzzles.

PC GAMER VERDICT

Punchy combat and a pretty setting can't hide *Darksiders III*'s lacklustre platforming and puzzles.




Makers upgrade your weapons using loot you've found.




You squash boring bugs in boring caves early on.

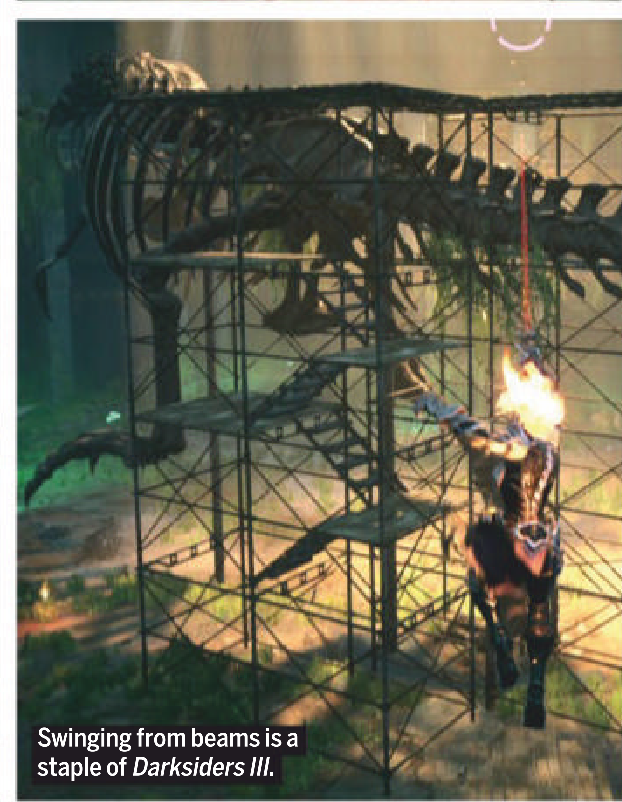



Chaining Fury's combos feels fantastic.


The bosses are massive, but some are deceptively easy.


Your Watcher is the butt of Fury's (unfunny) jokes.




Swinging from beams is a staple of *Darksiders III*.



Undertale characters appear, in new forms, in the opening town.

Unlike *Undertale*, there are no random encounters. Enemies appear on the map.

In addition to battles, you'll face puzzles and traps in each area.

RUNE 101

Saving the world without spilling blood in *Undertale* follow-up **DELTARUNE**. *By Tom Sykes*

How do you follow a hit like *Undertale*, the admirably pacifist RPG that took the world by... well, by hugging it back in 2015? Turns out you suddenly release a follow-up, under the guise of a 'survey program' that allows you to create your own character. It was a matter of hours before the world realised that program was really *Deltarune*: a sorta-maybe *Undertale* sequel that will take the form of multiple episodes.

This first chapter is free, and offers a few hours of battling and exploration. In a playful manner, your custom character is abruptly discarded before you're dropped in the role of Kris: a mute protagonist in a sleepy suburban town. Dispatched from the classroom on a trifling errand, Kris and violent bully Susie are transported to a realm that looks pretty similar to the one found in *Undertale*. Exactly how it's related is something we'll discover over the coming months or years, but this particular underworld provides another environment in which to test your bloodthirstiness.

Undertale's most box-worthy bullet point was your ability to spare every enemy you came across. That's *everything*, from the lowliest grunt to bosses – and spreading peace was generally harder than waging war, as you had to fight with slippery words rather than a reliably sharpened blade. That philosophy continues into *Deltarune*, but there are a few new wrinkles to be aware of this time.

As with its predecessor, its best feature is its characters

You now have a party of companions who will assist you during battle – or perhaps 'assist' isn't quite the appropriate term. Susie, at least to begin with, isn't keen on helping people (or following orders in general), so if you're going the pacifist route you'll have to warn enemies to watch out for the bully's attacks. Additionally, there's a sense that *Undertale*'s 'everybody can be saved with kindness' message has become a *tiny* bit more complicated in 2018 – as a character states near the end of *Deltarune*, sometimes the right thing to do is fight.

NEED TO KNOW

WHAT IS IT?
A turn-based fantasy RPG, and the follow-up to *Undertale*.

EXPECT TO PAY
Nothing

DEVELOPER
Toby Fox

PUBLISHER
In-house

REVIEWED ON
AMD A4-6300, GT 610, 6GB RAM

MULTIPLAYER
None

LINK
www.bit.ly/DeltaruneGame

KILL WITH KINDNESS

While combat hasn't changed too much from *Undertale*, battles are more involved and strategic thanks to your two companions, who you can order about in often ridiculous ways. Depending on the situation, you can make Susie flirt with enemies, or nervous mage Ralsei mutter compliments to violent monsters. The game makes you chuckle even as you're implementing battle tactics.

Deltarune is *Undertale* in miniature, with a story that's smaller in scope, but that's no less effective at tugging at your ventricles because of it. As with its predecessor, its best feature is its characters, who will make you grin, then make you laugh, then break your heart. What so few RPGs understand is that it's *characters* that stick with us, not musty lore. *Deltarune* will be back, hopefully with Susie, at some point in the future, but this is one hell of a statement of intent for the rest of the series. ■

PC GAMER VERDICT

***Undertale* wasn't a one-off. Its magic shines through in this systematically embiggened follow-up.**



MIDNIGHT MOVIE

Things get weird in THE GOODBYE NOTE. *By Tom Sykes*

Last year, talented pixel artist Octavi Navarro released their first game as a little Halloween freebie, and this year sees a follow-up in the form of *Midnight Scenes: The Goodbye Note*, a similarly monotone, similarly eerie point-and-click.

The games are presented as entries in a Twilight Zone-style anthology series, and the second is slightly more ambitious, boasting a handful of locations, a more interesting story to chew upon, and – in true Twilight Zone fashion – a more emphatic gut punch waiting at the ending twist. Beginning on a turbulence-stricken aeroplane, in a violent thunderstorm no less, you're soon flashed back to a top-secret laboratory, and to a mysterious substance that shouldn't be messed around with.

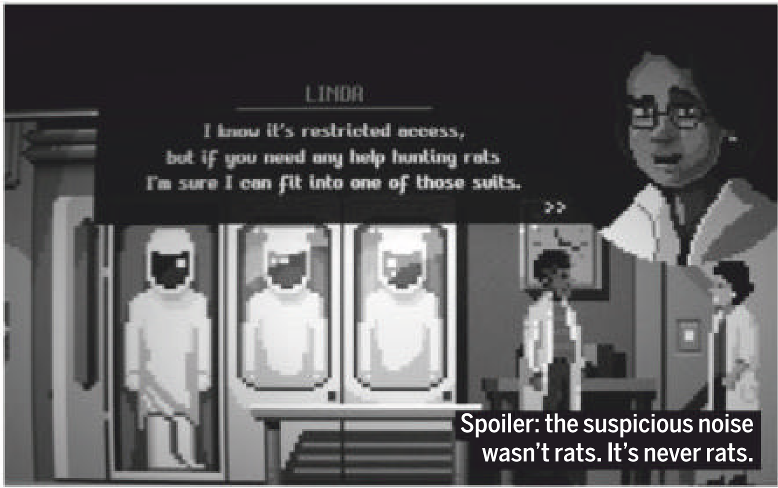
The plot is pure B-movie, and wonderfully so, shrinking a Cold War-era sci-fi film down to a more compact 20-30 minutes, while adding a handful of puzzles to keep your brain engaged. The art, as you might expect from an artist who worked on *Thimbleweed Park*, is some of the best you'll find in any pixel art game: characterful, slightly cartoony, but still entirely fitting with the game's largely serious tone.

But it's that pointing, and of course that clicking, that has evolved the most since the original *Midnight Scenes*, which was too small in every way to really grapple with. This is a proper adventure game, with a few good puzzles and a story that takes you on a journey, as your desperate scientist tries his best to save mankind. It's an enjoyably pulpy adventure game, and if the series continues like this, in a couple more Halloweens we'll be playing a truly great one. ■

84



There ain't no party like a scientist party.



Spoiler: the suspicious noise wasn't rats. It's never rats.

NEED TO KNOW

EXPECT TO PAY	DEVELOPER	WEBSITE
Nothing	Octavi Navarro	www.bit.ly/goodbyenote

LOST AND FOUND

Sinister suburbs in SEPTEMBER 1999. *By Tom Sykes*

It's hard to imagine now, but found footage horror films used to have real power. There was an element of verisimilitude to The Blair Witch Project and The Last Broadcast that made them all the more effective at getting under your skin. There hasn't been much of note since, but 98demake's *September 1999* is the most unsettling found footage experience I've come across in ages. Its uncannily domestic setting feels like a real place, albeit one you'll be desperate to get away from.

In the last minute alone, roughly 80 billion free horror games have been released that use a VHS camera filter to hearken back to the '90s, but this is the first I've encountered that feels *more* real because of it, that feels closer to photorealism with use of flickering and warping noise overlaying the screen. The 3D models and textures that comprise this dingy suburban house must be extremely high quality, while any gaps in the uncanny valley have been filled in thanks to that hefty VHS smear.

Presented as an actual reel of tape, *September 1999* begins without any menu or introduction, but with the camera simply filming an empty room. Controlling that camera, you'll explore the house a tiny bit, as unsettling sounds suggest unsightly things just off in the distance, and as jarring jump cuts gradually bring the horror closer. There's an ending, which is as ambiguous as it is toe-curling, before the game suddenly cuts out, the tape unceremoniously switched off.

Horror is more effective when it's presented in a matter-of-fact manner, as it is here. There are no jump scares, and no music cues to remind you that it isn't real. ■

83



Now, to send the tape off to You've Been Framed.



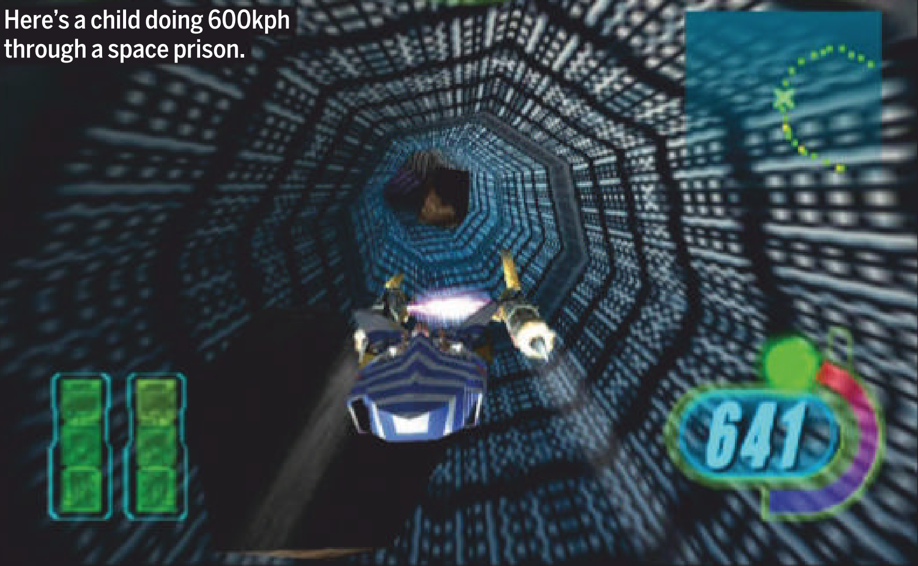
It's not clear whether you're the victim or villain.

NEED TO KNOW

EXPECT TO PAY	DEVELOPER	WEBSITE
Nothing	98demake	www.bit.ly/sept_1999



I contend that this looks better than the film.



Here's a child doing 600kph through a space prison.







Going sideways through a gap: a good trick.

OH FOR POD'S SAKE

Meeting STAR WARS EPISODE I: RACER halfway

If I had to pick a single moment that sums up the Star Wars prequels, it'd be the bit when the Force Theme plays before the podrace in Episode I. A single bar of the Force Theme accompanies the moment in Return of the Jedi when Darth Vader turns against the Emperor. Here, it soars as a bored-sounding Liam Neeson bundles a child actor into a rocket-powered sled. "Feel, don't think," he mumbles, but what he means is, "I'm sure there was a way of buying a hyperdrive that didn't involve betting on a nine-year-old in a death race, but I'll be fucked if I'm figuring it out."

"May the Force be with you," he concludes, before fucking off in a poncho to watch the race on his iPad. Then Jabba the Hutt farts the decapitated head of a monkey into a big gong, or something. It's been a while since I've seen it. The point is: the Star Wars prequels are capable of both misunderstanding and overcomplicating even the simplest things about the original Star Wars trilogy.

Yet there's something pure about the sequence that follows. The podrace is basically a wordless action sequence about fast vehicles, and thus sits at the centre of George Lucas' comfort zone – far from the spooky hinterlands of 'writing for actors' and 'making actors say the thing you wrote'.

> **It captures the joy of making a cool space thing go very fast**

And there's something similarly pure about *Star Wars Episode I: Racer*. Like the *X-wing* and *TIE Fighter* games before it, this arcade racer pulls deep from – and fleshes out – the most mechanical aspects of Star Wars. The glimpses of internal logic hinted at in the movies – podracers turning sideways to fit through narrow gaps, managing the heat of your racer's engines, shooting flame at each other and doing cool skids – are turned into game rules, and they work well.

Despite its cartoonishness, there's a simulationist sensibility tucked away beneath the surface, which has ever been the sweet spot for Star Wars games. While *Episode I: Racer* is far from the best among them, it might be the best thing to emerge from the wreckage of a risible movie.

NEED TO KNOW

WHAT IS IT?
Arcade racer based on that one bit from The Phantom Menace.

EXPECT TO PAY
£7

DEVELOPER
LucasArts

PUBLISHER
Disney Interactive

REVIEWED ON
Core i7-6700K, 16GB RAM, GTX 980

MULTIPLAYER
Hosted sessions or LAN games

LINK
www.bit.ly/episodeIracer

WATTO SHAME

It's certainly dated, but it runs well on a modern PC and you can get an Xbox controller working with a bit of effort. Multiplayer is limited to hosted sessions and LANs – no split screen, which is a shame – but it's pleasant to spend a few hours with. *Episode I: Racer*'s sense of speed remains impressive, particularly for a game of its age: it has simpatico with George Lucas' best instincts, which is to say that it captures the joy of making a cool space thing go very fast. And its roster of weirdo alien snoot-men look more charming here, when they're built out of six polygons apiece, than they did as eerie late-'90s CGI monstrosities. That's one of several low bars set by The Phantom Menace. The important thing is that this game, at least, manages to lurch over them with something resembling confidence. ■

PC GAMER VERDICT

Episode I: Racer is a dated but impressively fast arcade racer that breathes a bit of life into a crap film.



AL VERDE

Stepping on the wrong end of the RAKE

That's enough of the '90s, thank you. Let's get elbow deep in bad things that only the next generation of kids will understand: the endless pile of YouTube-friendly creepypasta games that gather in Steam's dustiest corners. There's loads of these: Unity asset store forests thrown together so that dudes with scruffy beards and vast online followings can lose their shit at the first sign of a low-res Slenderman.

Thing is, *Rake* is almost a good game. I say 'almost' because it isn't: but there's the germ of a genuinely good horror game here. You're out in the woods hunting a Jersey Devil-type cryptid called the Rake over the course of three days. Each day is split into half-hour day and night sections. During the day, you're relatively safe: you explore a brightly-lit Unity Asset Store forest, searching for supplies and choosing five trees to stick cameras to.

At night, it's more dangerous. You're still free to explore, but you're being hunted so it's safer to stay in your trailer and flick between grainy camera feeds. The goal is to kill the Rake within three nights while not being killed by it, and the overall effect is like *Five Nights At Freddy*'s crossed with a deer hunting sim.

There are a bunch of neat ideas: like the fact that the Rake can kill you during the day, and will destroy your cameras and wait in the canopy for you to pass underneath on your way to fix them. None of this is executed well enough to come with a real recommendation, but it's enough to appreciate the thought that went into *Rake*'s conception. A developer with greater resources could have scared the shit out of some YouTubers, here, is what I'm saying. ■

45



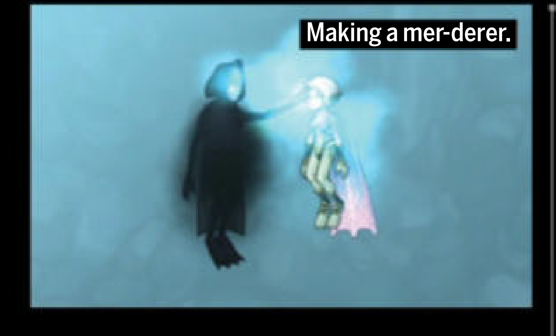
Ruined buildings can have stuff, but also the Rake, in them.



Setting (and resetting) cameras is a neat horror mechanic.

NEED TO KNOW

EXPECT TO PAY	DEVELOPER	PUBLISHER
£4	Konsordo	In-house



Making a mer-derer.

AQUARIA

Aquaria arrived right at the start of the indie boom heralded by *Braid*, and it's a bit of a shame that it doesn't get more credit. It's a massive underwater exploration game (think *Echo the Dolphin*) where you play as a mermaid who can 'sing' different colours to cast spells. There's a neat swimming system, the art and sound design is genuinely lovely, and the story, while slow to get started, is well conceived and interesting. I want to emphasise the slowness of it, though: this is a long game and it really takes its time introducing its best elements. If you find yourself with a weekend to sink into a ten-year-old forgotten indie game, however, then you could do much worse. ■

80



Enjoy with a relaxing cup of tea.

BIT.TRIP BEAT

Now let's visit that moment at the start of the indie wave when it was the late '70s again. *Bit.Trip Beat* – the first in a long line of *Bit.Trip* games, as it happens – is singleplayer rhythm action pong. Squares fling at you from the right: you bat them back to the beat. That's it! As you progress and build combos, the patterns get more and more elaborate: sine waves, blocks that pause for a beat before rushing forwards, and so on. You know how this works. What you're thinking is: 'Does it beep and invite lazy drug analogies.' My answer: very much yes. I mean, the developers put 'trip' in the title. But I will not indulge them! They'll not have that satisfaction! It's quite good, though! ■

75



I've seen shades of grey you people wouldn't believe.

STEEL STORM: BURNING RETRIBUTION

You know what? Let's stick with the '90s. There's something comfortingly Amiga 1200-ish about *Steel Storm*. It's a top-down shmup where you steer a hover tank through grim sci-fi environments. You collect bonus weapons and add them to your spread, while completing enough objectives to unlock the exit teleporter. *Steel Storm: Burning Retribution* is definitely a videogame, in other words, and it's got the unnecessary subtitle to prove it. That said, there are better shmups on Steam. ■

60

HARDWARE

GET THE PC YOUR GAMES DESERVE









We've been assured this isn't a high-tech alien coffin.

GROUP TEST

MICE

The best gaming mice of 2018

By Wes Fenlon & Terrence Mai

What is the best mouse for you? While the feel is important, choosing the best mouse relies on what you'll be using it for. If you're an FPS player, you're looking for accurate tracking. If it's MOBAs or MMOs you love, customisation options are crucial. All of the mice we recommend have been tested with gaming in mind, so whichever you choose, you'll get a mouse that performs to a good standard.

1

RAZER NEVER MESSES WITH THE DEATHADDER'S SHAPE. THERE'S NO REASON TO



Deathadder Elite

RAZER £60

1 The Razer Deathadder has an all-round fantastic shape for all sorts of grips and hand sizes, and we have spent hundreds of hours playing games, using Photoshop and browsing the internet with it. Despite years of iterations, Razer never messes with the Deathadder's shape. There's no reason to.

The Deathadder Elite uses a 16,000DPI optical sensor, but big numbers don't necessarily mean quality. Here's the important bit: for the Elite, Razer chose a sensor based on the PMW-3366 developed by sensor company Pixart in collaboration with Logitech, which we have called the best mouse sensor available since it debuted back in 2014. Razer's implementation should deliver flawless tracking, even if you move the mouse as fast as you can.

For the majority of games and gamers, the Deathadder Elite is the best mouse. It's simple where it should be, with two perfectly placed, generously sized thumb buttons, a great optical mouse sensor that will work on both hard and cloth pads and the ultimate body shape for a claw or hybrid claw/palm grip. ■

PC GAMER VERDICT

- ⊕ Rivals the best gaming mouse sensor
- ⊕ Ideal shape for palm or claw grips and a variety of hand sizes
- ⊖ Driver software requires a sign-in

SPECS **DPI:** 16000 / **SENSOR:** OPTICAL / **INTERFACE:** USB / **BUTTONS:** 6 / **ERGONOMIC:** RIGHT-HANDED / **WEIGHT:** 105 G

G903

LOGITECH £100

2 The only wireless mouse on this list is here for a reason: not only is it the best wireless gaming mouse, it's the best gaming mouse you can buy if you're willing to get spendy. The Logitech G903 Lightspeed is expensive, but it's the only mouse around £100 that we think is worth the price. It can easily be used in wired mode by plugging in the included micro USB cable, making it a fantastic wired mouse, too.

Why is it so great? The G903 Lightspeed is wonderfully light at 107 grams and uses Logitech's PMW-3366 sensor, which is extremely reliable at low and high DPI settings, with no issues of acceleration or cursor jitter. The G903's ambidextrous design includes removable thumb buttons for either side, and it fits a medium-large hand perfectly.

The G903 also has a one-of-a-kind pivot bar click mechanism which feels better than any mouse we've ever used. Seriously, it's the best click ever. At a lower price, this mouse would be our recommendation to everyone, but as it stands, the G903 is the best high-end mouse you can gift to your hand. ■

PC GAMER VERDICT

- ⊕ Uses an accurate, reliable sensor
- ⊕ The best click feel of any mouse we have used
- ⊖ Expensive

SPECS **DPI:** 12000 / **SENSOR:** OPTICAL / **INTERFACE:** USB / 2.4GHZ WIRELESS / **BUTTONS:** 11 / **ERGONOMIC:** AMBIDEXTROUS / **WEIGHT:** 110G

HOW WE TEST

We've used enough mice to have a good feel for build quality, button placement and shape. Our opinions on those aspects of mouse design are, naturally, subjective, but they're also well-informed. The tricky part of testing mice is analysing the other part of the equation: tracking performance, jitter, angle snapping, acceleration and perfect control speed.

What do all those terms mean? If you're interested in the intricacies of gaming mice, here are some basic definitions that will help you understand why each of these terms are important issues.

Grip How you hold the mouse. The most common are palm, claw and fingertip.

CPI/DPI Counts/dots per inch, or how many times the mouse sensor will read its tracking surface for every inch it's moved.

Jitter An inaccuracy in a sensor reading the surface it's tracking. Often occurs at higher mouse movement speeds.

Angle snapping Takes data from a sensor and modifies the output with the goal of creating smoother movements. This is bad for games as it means your cursor movements won't match your hand's movements.

Acceleration When a mouse sensor exhibits acceleration it means your cursor will move faster the quicker you move the mouse. This is often considered bad, because it means moving the mouse slowly six inches across a surface will move the cursor a different distance than moving the mouse rapidly the same distance.

Perfect control speed The speed at which the mouse can be moved while still tracking accurately.

Lift-off distance The height a mouse has to be raised before the sensor stops tracking its surface. Some gamers prefer a mouse with a low lift-off distance because they play at a very low sensitivity.



Naga Trinity

RAZER £90

3 The form and function of Razer's Naga mouse has come a long way over the years. Its latest version, the Naga Trinity, is the best yet: a small, comfortable mouse with a high-quality sensor and three interchangeable thumb grips with button arrays ideal for MOBAs, MMOs or general use. The MOBA array is the best, offering seven buttons in a circle around your thumb. There are enough buttons to map multiple abilities, but not so many that they become an overwhelming samey blob. The 12-button array, designed for MMOs, has that problem, but anyone who wants a whole number pad under their thumb will appreciate the option.

The Naga Trinity's side panels snap into place with magnets and don't wiggle a bit when gaming. Otherwise, the Naga Trinity is the same as the Naga Hex before it, with a comfortable palm grip shape that includes a small pinky rest. The Naga Hex is a bit on the small side for larger hands, with more of a squat shape than some gaming mice. It's comfortable in the relaxed grip suited to MMOs, but will still do the job if you play MOBAs, shooters or any other active games. ■

PC GAMER VERDICT

- ⊕ Customisable thumb grip
- ⊕ Buttons feel nice and clicky despite being removable
- ⊖ Design is a bit squat for larger hands

SPECS **DPI:** 16000 / **SENSOR:** OPTICAL / **INTERFACE:** USB / **BUTTONS:** 19, 14 OR 9 / **ERGONOMIC:** RIGHT HANDED / **WEIGHT:** 120G

Sensei 310

STEELSERIES £35

4 The updated version of this SteelSeries mainstay, the Sensei 310, subtly reinvented a classic mouse. And it needed it. Almost everything is new except the Sensei's ambidextrous shape, and that's exactly how it should be. Thanks to a new plastic, the Sensei is grippier and can shrug off a sweaty palm. And SteelSeries is using its own version of one of the best sensors around, ensuring the Sensei 310 won't suffer from tracking issues.

The Sensei 310 fits in your hand just like the old Sensei, and is a great shape for either left or right-handed gamers looking for a midsized ambidextrous mouse. That means it has a pair of thumb buttons on the left and the right. An issue for ambidextrous mice is that it can be too easy to accidentally click the wrong side's buttons. In our hours of testing the Sensei 310, that hasn't happened once. The size and shape of the thumb buttons have been tweaked, making it easy to rock your thumb upwards to press them but keeping them out of the way of accidental pinky clicks. Anyone looking for a light, ambidextrous mouse: this should be your first stop. ■

PC GAMER VERDICT

- ⊕ Very light at 92 grams
- ⊕ Great shape with improved grips
- ⊖ A touch too small and light for users with larger hands

SPECS **DPI:** 12000 / **SENSOR:** OPTICAL / **INTERFACE:** USB / **BUTTONS:** 8 / **ERGONOMIC:** AMBIDEXTROUS / **WEIGHT:** 92.1G


4


5


6

G203 Prodigy

LOGITECH £20

5 You can find a lot of decent, no-name brand gaming mice on Amazon for less than £20, but it's worth spending just a little more for the Logitech G203 Prodigy (also called the G102 in some regions). With this mouse you get Logitech's fantastic, reliable build quality, good gaming driver software and a tried-and-true mouse shape. Since its popular G100s years ago, Logitech has released several mice with a nearly identical small, almost-ambidextrous body, and it remains a comfortable mouse for FPS or MOBA players. And the G203 is damn cheap.

The G203 Prodigy doesn't use Logitech's top-end sensor, but testing has shown that the Mercury sensor (developed by Logitech) in this mouse is so good, you won't notice the difference. It supports up to 8,000DPI and has no issue with jitter or acceleration. Unless you need insanely high DPI settings, the G203 is a killer mouse for a budget price. And if you decide you really like the shape and can spend a bit more, consider a step up to the Logitech Pro, which does include that top-of-the-line mouse sensor.

PC GAMER VERDICT

- **Good build quality in a cheap mouse**
- **Great shape for those who like smaller mice**
- **Not the best sensor**

SPECS DPI: 8000 / **SENSOR:** OPTICAL / **INTERFACE:** USB / **BUTTONS:** 6 / **ERGONOMIC:** RIGHT-HANDED / **WEIGHT:** 85G

G502

LOGITECH £40

6 The Logitech G502 Proteus Spectrum is a 121g monster (that's with its weights removed and not counting the cable), and slightly longer than the Deathadder. It's an update of Logitech's classic MX 518 and G500 mice, with a fantastic 12,000DPI sensor. It's a cozy palm grip shape that's stood the test of time and it has some premium build touches, like its weighted metal scroll wheel, which has a super satisfying notched scroll and an option to switch to a free-spinning mode.

Due to the design and button placement, the G502 isn't as great an all-rounder as the Deathadder. A couple of buttons by the left-click are awkwardly placed and prone to misclicks. But for gamers who love a heavy mouse, the Logitech G502 Proteus Spectrum is the one to get. It's great value, and continues to be a popular model for Logitech. So much so that the company has updated the G502 with its new top-end Hero sensor in a new model, the G502 Hero. Get that if you want the top-of-the-line in mice sensors – but you're likely not going to notice the difference, so the Proteus Spectrum is still a good option.

PC GAMER VERDICT

- **Most accurate gaming mouse sensor on the market**
- **Adjustable weight**
- **Some buttons can be hard to press**

SPECS DPI: 12,000 / **SENSOR:** OPTICAL / **INTERFACE:** USB / BUTTONS: 11 / **ERGONOMIC:** RIGHT HANDED / **WEIGHT:** 121G

YOUR NEXT PC

BUYER'S GUIDE

Build the best PC for your budget



KEY

Budget build

PC gaming is for everyone. Pick the parts you want to build a new, well-rounded PC for a good price.

Mid-range build

You want to run every new game at 1080p 60fps. This recommended build will see you through.

Advanced build

You're looking for the best PC on the market and superior components. But you still want to spend smart.

BUDGET BUILD

Enjoy 1080p gaming without breaking the bank



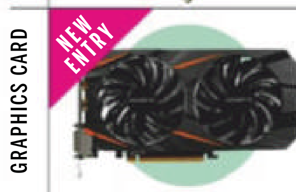
TOTAL
£1,003

MOTHERBOARD



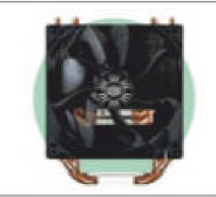
B360M-DS3H
Gigabyte **£70**
It lacks overclocking options, but the new B360 chipset is far cheaper than the Z370 and is perfect for this budget build.

PROCESSOR



Core i3-8100
Intel **£121**
A great processor for out-of-the-box gaming performance. Opt for the AMD Ryzen 1300X if you'd like to overclock.

GRAPHICS CARD



GeForce GTX 1060 Windforce OC 3GB
Gigabyte **£217**
Amidst fluctuating GPU prices, Gigabyte's compact 1060 model offers the best value.

COOLER



Hyper 212 Evo
CoolerMaster **£22**
We've dropped the controller from this build and added in a better CPU cooler, for a quieter, cooler system.

MEMORY



Vengeance LPX 8GB (2x4GB) @2400MHz
Corsair **£69**
DDR4 prices are still high, however this Corsair pair is a good value option.

POWER SUPPLY



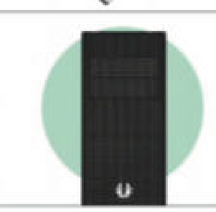
500BQ
EVGA **£55**
It may be cheap, but this 500W PSU is more than enough to handle any budget build. This rig only draws 269W at maximum load, too.

SSD



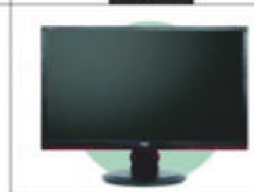
MX500 250GB
Crucial **£47**
Crucial's SSD range is fantastic value and offers good performance, too. It's also time we jumped up to 250GB.

HDD



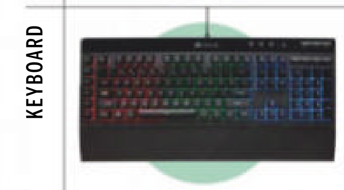
WD Blue 1TB 7200RPM
Western Digital **£36**
One terabyte of old-fashioned hard storage is the perfect home for all of your media, backups and storage-hungry games.

CASE



Neos
Bitfenix **£35**
The Neos provides decent airflow, good support for 3.5-inch hard drives, and a fairly painless build experience.

DISPLAY



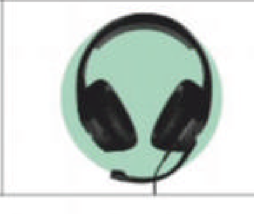
G2460PF
AOC **£219**
This is the cheapest 144Hz, gaming monitor you can buy yet it still offers decent image quality, great performance and Freesync.

KEYBOARD



K55
Corsair **£48**
This keyboard may lack mechanical keyswitches but it offers decent typing, plus it has RGB and extra gaming keys.

MOUSE



Rival 110
SteelSeries **£29**
A great sensor, simple design and impressively low price make this a great entry-level gaming mouse.

HEADSET

Cloud Stinger
HyperX **£35**
We love the HyperX Cloud, but at £70 it's too much for an entry-level system. The Cloud Stinger is the next best thing.

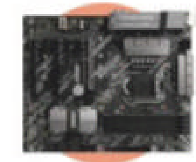
MID-RANGE BUILD

Our recommended build for playing the latest games



TOTAL £1,804

MOTHERBOARD



Z370 Tomahawk
MSI **£133**

This is a nice-looking bit of kit at a good price. Couple that with two M.2 slots, and it's the perfect place to house that Core i5.

PROCESSOR

Core i5-8400
Intel **£295**

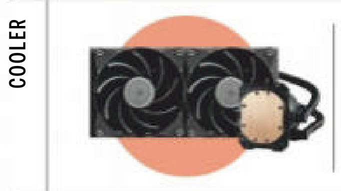
Better default gaming performance and a lower price puts this chip ahead of the AMD Ryzen 2600X.

GRAPHICS CARD

GTX 1070 SC Gaming ACX
EVGA **£441**

Again, we're making a saving this month on our choice of graphics card. This time you can expect a chunk of savings.

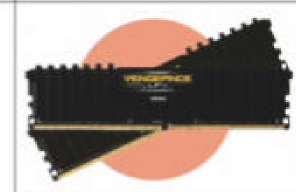
COOLER



MasterLiquid Lite 240
CoolerMaster **£45**

This 240mm, dual-fan, all-in-one liquid CPU cooler is ludicrously cheap, but performs well and stays quiet, too.

MEMORY



Vengeance LPX 16GB (2x8GB) @2666
Corsair **£116**

16GB is the minimum amount of RAM we'd recommend for a system of this calibre.

POWER SUPPLY

RMx 650W
Corsair **£98**

There's nothing like having a quality power supply. Get a decent cable kit for this one and you can easily spice up your rig.

SSD



MX500 250GB
Crucial **£47**

This is still our SSD of choice. We've kept the capacity the same as our cheaper build, but upgrading to 500GB would be ideal.

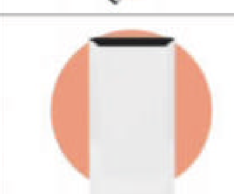
HDD



WD Blue 1TB 7200RPM
Western Digital **£36**

SSDs are great, but they're still far from cheap. This 1TB HDD will hold as many games as you will need.

CASE



Eclipse P400S TG
Phanteks **£82**

The clean lines, intuitive build features and fantastic price cements the Eclipse as our mid-range case of choice.

DISPLAY



AGON AG251FZ
AOC **£289**

Not only does this 1080p monitor have a lightning-fast 240Hz refresh rate but it produces decent image quality, too.

KEYBOARD



MasterKeys Pro L
CoolerMaster **£84**

This is one of the cheapest mechanical keyboards, yet it looks and feels great. It only has single-colour backlighting, though.

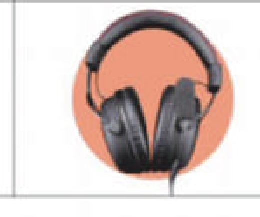
MOUSE



AW958 Elite
Alienware **£68**

Suitable for any grip thanks to its add-ons, and there's just something about those massive metallic buttons.

HEADSET



HyperX Cloud
Kingston **£70**

Despite the budget price, we recommend this headset. There's simply nothing better for the money.

ADVANCED BUILD

Go above and beyond with a PC powerful enough to end worlds



TOTAL
£3,350

MOTHERBOARD



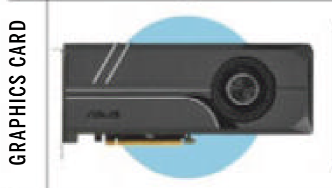
Strix X470-F Gaming
Asus **£185**
Get the most from the new AMD Ryzen 2700X with this matching X470 motherboard that's packed with features.

PROCESSOR



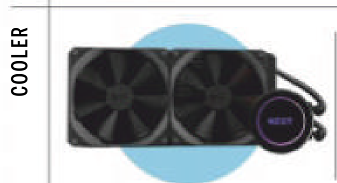
Ryzen 7 2700X
AMD **£299**
Easy to overclock and with huge performance out of the box, AMD's new flagship CPU is the one to go for.

GRAPHICS CARD



GeForce GTX 1080Ti Turbo
Asus **£840**
Prices of GTX 1080 Ti's don't seem to have dropped as much as other cards but you're still saving a decent amount.

COOLER



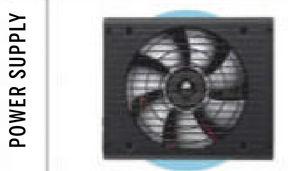
Kraken X62
NZXT **£130**
The Kraken is the culmination of three of our favourite things: an infinity mirror, a 280mm radiator and slick braided cooling.

MEMORY



Vengeance LED RGB 32GB @3200
Corsair **£364**
Ryzen is the one processor that does benefit hugely from higher-frequency memory. This kit is perfect for any would-be video expert.

POWER SUPPLY



HX750i 80 Plus Platinum
Corsair **£128**
Modular, custom cable kits, and a platinum efficiency rating. What's not to love about this Corsair PSU? Nothing, that's what.

SSD



970 Evo 500GB M.2 PCIe SSD
Samsung **£137**
Samsung's newest NVMe SSDs push performance to new heights and cost the same as the previous 960 range.

HDD



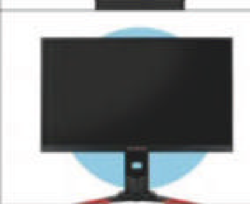
WD Blue 4TB
Western Digital **£99**
With a large boot SSD, there's little need for a large, cheap SSD. Instead we've opted for a huge 4TB hard drive for all your bulk data.

CASE



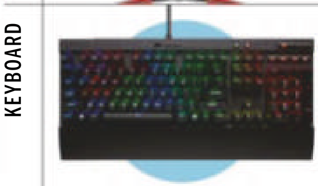
Enthoo Evolv ATX TG
Phanteks **£128**
The 5mm thick aluminium panels resonate with svelte professionalism, and the interior makes building inside this a dream.

DISPLAY



XB271HU
Acer **£600**
Our previous choice, the AOC AG271QG, has shot up in price. This Acer is now the best value 165Hz IPS gaming display.

KEYBOARD



K70 LUX RGB
Corsair **£120**
Even when money is no object it's hard to argue against Corsair's latest K70. A no-fuss, solid piece of aluminium craftsmanship.

MOUSE



Mamba Elite
Razer **£90**
A beautiful design, comfortable shape and outstanding performance make this a brilliant high-end gaming mouse.

HEADSET



ATH-AG1X
Audio-technica **£230**
What's life without a nice set of cans? The ATH-AG1X set is the pinnacle of headphones, and it's super comfy to boot.

EXTRA LIFE

CONTINUED ADVENTURES IN GAMING

A chipper spacefish and friends.

"I fully intended to use him to distract the sentinels"

Heading back into NO MAN'S SKY



In my collection of *No Man's Sky* save files there's one which is only three hours long. It is also my favourite save because it's the one where I keep my ringed ocean planet. Before the *Abyss* update, Lowelwoyn Beta (now renamed Pip's Ocean Paradise and shortened to PIPWORLD) wasn't exactly interesting, but it was aesthetically pleasing. Now, thanks to *Abyss* it's become fascinating.

In an older set of screenshots, PIPWORLD's ocean was not a thriving hub. Small plants dotted the ocean floor and infrequent shoals of fish hung like clouds in an otherwise empty expanse of Pacific blue.

PHILIPPA WARR



THIS MONTH
Grabbed *No Man's Sky* by the *Abyss*.

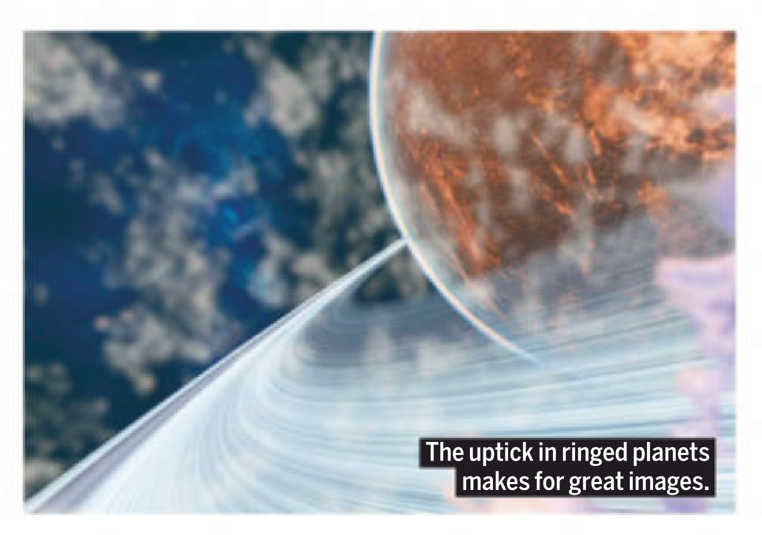
ALSO PLAYED
You don't need to know my *Merge Dragons* problems

Revisiting PIPWORLD, I sploshed into the water and found the ocean desert had vanished. The seabed now writhes with coils of minerals and sinuous rock formations which seem to have fallen out a Barbara Hepworth sculpture garden. Rumbles and roars let you know when strange pods are about to spit boiling water, and as I was scanning all the new fish a little crablike creature sauntered past.

Thing is, PIPWORLD is in a creative mode save file. It's great for sightseeing, but it also smooths away the elements which anchor you in the world. Regardless of whether or not you like the resource and crafting loops, or the story, of *No Man's Sky*, they give you reasons to move around and push you into new activities. I wanted an underwater base that I'd worked for, dammit!

Which is how I circled back to the other enormous update, *NEXT*. I played *NEXT* on a studio visit when

I WANTED AN UNDERWATER BASE THAT I'D WORKED FOR, DAMMIT!


The uptick in ringed planets makes for great images.


Just add the Benny Hill music.

it was still at the preview stage. The devs who joined me in multiplayer behaved impeccably, sharing resources and working together to build a base. As such, it was barely recognisable as a multiplayer videogame experience.

Not so, my most recent multiplayer experience. I invited my partner to join me for fun and to build together. This was a lie and I fully intended to use him to distract the sentinels (planetside robopolice) which were furious with me.

Almost immediately there was hapless shooting, clumsy resource sharing, photo mode documentation of him running away in circles from an angry robot sentinel, several crash-landings and the inevitable failure of my system of navigation which uses identical base computers as planetary bookmarks.

IN MEMORIAM

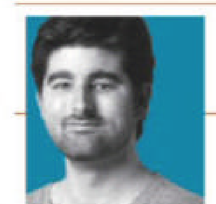
When we finally found the right base computer we spent about 20 minutes searching for a spaceship I'd been trying to repair. It would be an upgrade of eight whole storage slots! Then we saw the spaceship-shaped hole in the middle of the quest area. The actual ship, for whatever reason, was nowhere to be found. I won't tell you what I said at that moment because we'd have to censor it for the US edition of the magazine. Let's just say we used our terrain manipulators to express our displeasure in the rocky surface of that gap. ■


William Sidney Bridger has died a lot, and it's all my fault.

"What's left? This knife, I guess"

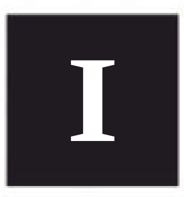
Finding weapons of last resort in BATTLEFIELD V

TOM SENIOR



THIS MONTH
Took the special out of special forces.

ALSO PLAYED
Warframe



I am William Sidney Bridger, a member of the new special boat service. I am behind enemy lines in one of *Battlefield V*'s singleplayer missions and I have just thrown a grenade directly into the wall I'm hiding behind. Oh no. A flashing grenade indicator pops up and I know it's pointless to run. I go prone on the grenade. Boom.

I am William Sidney Bridger, a reincarnated member of the new special boat service. I have decided that grenades suck, but I will use my special forces ingenuity to find a new way to complete my mission and blow up the enemy's radar towers. I scout around the area with my binoculars. Soldiers, red explosive barrels, more soldiers and – aha! – a fighter plane. Do I know how to fly an aircraft? It's too late. I'm in the cockpit. I take off and immediately go upside down. Other fighter jets scramble and suddenly I'm veering around dodging fire. Now I'm leaving the mission area and will die in ten seconds. I spin the plane around in a bad spiral and just manage to get back into play. I hit the ground and explode.

I am William Sidney Bridger, a reborn member of the special boat service who should definitely stick to boats. Grenades are traitorous. Planes are hard. Time for the middle way: a scoped bolt-action rifle. I lie in a bush a few hundred feet away from a radar town and start popping bright red explosive barrels. This alarms the enemy, but doesn't appear to kill any of them. They start running towards me and shooting bullets. I take five or six down. The wait to slide back the bolt between shots seems agonising. The enemy bullets kill me.

KNIFE EDGE

I am William Sidney Bridger, a save scumming member of the special boat service who has no idea how the fuck a man who can't throw or shoot has been recruited into the special boat service.

Grenades, planes and bullets have failed me. What's left? This knife, I guess. I run directly at the radar tower. The enemy detection indicator slowly fills up, but by the time they notice me I have already killed one. His friend opens fire and I take it on the chest as I charge. Why aren't I dying? I run into the radar tower control room, plant the bomb and run. It explodes and I just keep running, alone with my knife, towards the next radar tower on the horizon. ■


Not being spotted adds to your score.


I'll be playing this level for weeks now.



"I'm so arrogant about the fact I'm top of the table that I tweet about it"

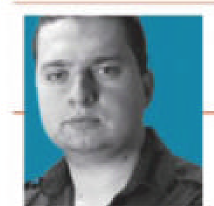
Going from last to first in HITMAN 2

Being friends with people who are good at *Hitman* was my first mistake. I have five friends who have logged scores on the *Hitman 2* leaderboards shortly after launch, and my first attempt at the game's 'training' mission, New Zealand's Hawke's Bay, yielded an atrocious 7,000 or so points. By comparison, the friend at the top of the leaderboard, Rock, Paper, Shotgun's Matt Castle, has 150,000. Damn it.

The mission is almost impossible to get right the first time. Set in a mansion on a beach, you arrive to an empty house, and only after accessing a secret room and activating a computer do the enemies and target arrive. On my first attempt, I messily shoot my target, Alma Reynard, in the head, kill her boyfriend, gun down her bodyguard then run out of the mansion onto the beach, before making a beeline for Agent 47's boat. Three guys are stood guarding the thing. I shoot them, too, and make it to the boat. 7,000 measly points.

That was rubbish, and I'm nervous about one of my Steam friends – like Phil – screengrabbing this terrible result and shaming me.





SAMUEL ROBERTS

THIS MONTH
Wasted a morning failing to beat Phil at *Hitman*.

ALSO PLAYED
Assassin's Creed Odyssey, Minit

So I have another, much more careful attempt a day later. I know how to break into the mansion quickly now –through the garage at the side – and I know that my target likes sugar in her tea. I find some poison, use it on the sugar, then figure out where she'll go to vomit it up and wait.

KILL CONFIRMED

The aforementioned secret room in the mansion features shurikens, grenades, guns... and a katana. I took them all to be safe. As the target completes her phone conversation and takes a gulp of tea, I'm ready.

She starts sicking up, and I put the sword through her while the guard waits outside. Silently done! I stash her body in a cupboard in the next room. When her bodyguard comes to investigate, I choke him out and stash him in the same cupboard.

I MAKE IT TO THE EXIT AND ACHIEVE SILENT ASSASSIN STATUS. GET IN!

Now it's just a run across the beach to my boat. I nab a guard's uniform as I'm exiting the garage. *Hitman* is all about applying what you've learned from previous runs to your next – and in the last run, my handler mentioned that a distraction would get the three guards away from my boat. A pile of petrol canisters in the back of a truck, lit with a silenced pistol bullet, does the trick. I make it to the exit and achieve Silent Assassin status. Get in!

My score? Over 159,000. I'm so arrogant about the fact I'm top of the table that I tweet about it, and go out of my way to make Phil aware of it. Like any worthy *Hitman* target, though, an ironic fate awaits me: Phil spends his lunchtime perfecting the level and knocks me off the top. 160,000 plus. Bastard.

This has ignited a furious sense of competition in me: I'm going to spend the rest of 2018 trying to knock him off the leaderboards for every level. After making Phil review 2016's *Hitman* seven times, it has finally come back to bite me in the arse. ■

"The captain's going down with his ship so I don't have to"

The right man in the wrong star system can make all the difference in HOMEWORLD



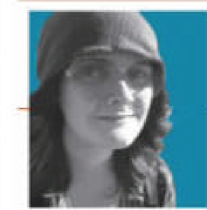
H*omeworld* is a classic space opera. As armadas trade blows to an orchestral accompaniment, little room is given for personal perspectives. This is a story of civilisations rising and falling, of noble Kushan exiles taking their ancestral home back from the sprawling Taiidan empire. What difference can one person make?

A fair bit, it turns out. Captain Elson is introduced in mission 13, Karos Graveyard. He's defected from the evil empire along with the crew of his destroyer, the Kapella. When I came back to *Homeworld* this month to finally wrap up the campaign, he left a mark.

The final fight over Hiigara drops you in the thick of it and doesn't let up. A locust swarm of mothership-melting ion frigates, followed by cruisers and destroyers. When one wave falls, a fresh hell warps in from wherever my guns aren't looking. Repair ships work frantically to keep my mothership alive. It's rough.

Fleet intelligence calmly informs me we're overrun, as yet another fleet warps in. But instead, there he is. My Lafayette, loaded with guns and ships in a burst of blue hyperspace. Elson's arrival signals the end. We mop up the last of the enemy forces. Silence falls and we survey the scene.

NATALIE CLAYTON



THIS MONTH
Let someone else make the heroic sacrifice.

ALSO PLAYED
Forza Horizon 4, Nuclear Throne

The good captain makes a break for it. Surely, I figure, he must know his formation won't make a dent in the Emperor's lines? I have gathered a fleet of dozens: heavy cruisers, destroyers, enough frigates to end this war without further losses on our side. But on he goes.

Maybe this is just dodgy late-'90s AI in action. But it could be how Elson is choosing to close out this chapter. He's a defector, a former captain in the Taiidan Elite Guard, and he probably didn't get his job as captain of the Kapella without getting his hands dirty. The Emperor's flagship is within sight and he guns it.

BY THE TIME MY FLEET ARRIVES THE DISARRAY WILL PROVE DEADLY

SUICIDE MISSION

I imagine Elson struggles to think of how people like him will last in the new age. His time has passed, but there's still a moment left to give one last gift to the Kushan. As his formation breaches the asteroid field surrounding the flagship I see it. He's split the Emperor's fleet. Instead of a wall, it's now a broken trail, slowly moving to deal with the traitor captain. By the time my fleet arrives the disarray will prove deadly.

According to the wiki, the Kapella survives. Elson is proclaimed a hero across the galaxy. But something feels off about that ending – it's far too tidy for *Homeworld*'s melancholic opera.

As alarms flare, and the Kapella, and Elson, goes up in flames, I can see the Taiidan Emperor looking on from his throne as the debris clears. The smugness on his face evaporating as my fleet – a legion of ships that will shatter an empire and end an age – floats silently and unstoppably onwards. ■



'Ere we go, 'ere we go.





They're not pulling any punches, huh?

The environment design is fantastic.



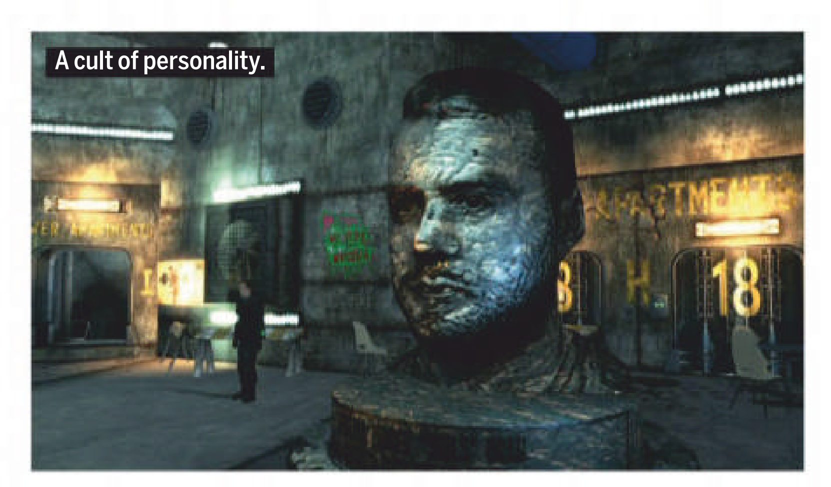
Confronting the vault overseer.



FALLOUT: NEW CALIFORNIA

An huge fan-made expansion for *New Vegas*. *By Andy Kelly*

This ambitious *Fallout: New Vegas* total conversion was, remarkably, seven years in the making. Developed by Rick Hukkanen and Brandan Lee, with the help of dozens of volunteers, the mod is set 20 years after the events of *Fallout 2*, making it much closer story-wise to the original Interplay series than the Bethesda/Obsidian games. It features new locations, 48 quests, full voice acting, and 13 endings. And best of all, it's totally free. You can download *New California* from Mod DB, and for most people, installing it is as simple as unzipping the contents into your game directory.



A cult of personality.

Like any good *Fallout* game, it begins with a narrator lamenting that, yes, war never changes. Over newsreel footage of nuclear bomb tests a man gives a rousing speech, like some jingoistic military commander addressing his troops. But then we see that, in fact, he's a 'vault-ball' coach getting his team ready for a big game. In the mod you play as a resident of Vault 18, which we learn is located high in California's San Bernardino mountain range, and you just happen to be the Vault 18 Patriots' star player. You're a jock, basically, which is different from most vault dweller origin stories.

One of the first choices you make is in the middle of a vault-ball match. A player charges at you, and how you deal with him dictates whether your character will be a soldier or scientist. This changes some things in the story ahead and offers two contrasting play styles, providing some replay value. It's a brilliantly organic way of shaping your character, although you do get to set SPECIAL stats with the familiar Vigor Tester. There are a lot of alternate paths related to stats and speech checks in *New California*, so it's worth thinking carefully about how you want to play it.

YOU'RE A JOCK, BASICALLY, WHICH IS DIFFERENT FROM MOST VAULT DWELLER ORIGIN STORIES

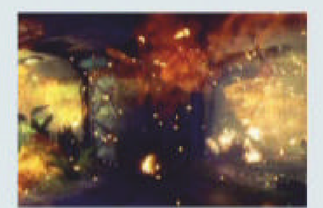
GOOD SPORT

The prologue takes place entirely in Vault 18, which is grander than some of the other shelters we've seen in the series. At its heart is a giant atrium from which each 'district' branches off – including a vault-ball stadium, admin offices, residential apartments and more. It's a dramatic place, and you can spend more than hour here if you're thorough, talking to fellow residents, completing quests and, of course, filling your pockets with junk. There are some fun low-stakes quests in the prologue designed to introduce the characters and set the mood, which is a nice way of drawing you into the setting.

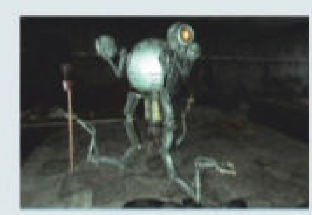
RECOMMENDED MODS *Improve your* New California *experience*



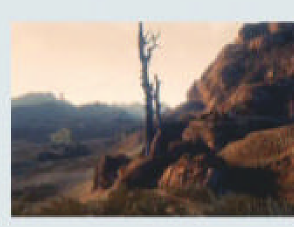
SOLID PROJECT
A mod that adds dynamic new features to *New Vegas* including takedowns, sprinting, climbing obstacles and lowering your weapon during conversations.



EVE
This mod adds HD blood and fire, better bullet impacts, improved textures and new kill animations. It makes the game's combat feel much more varied and impactful.



ROBCO CERTIFIED
Recommended for science players, this mod lets you take the blown-out shell of an enemy robot and turn it into a companion. You can eventually command bigger, scarier robots.



ENB
The popular graphic enhancer for *New Vegas* comes recommended by the creators of *New California*. Their preferred plugin is 'Rudy ENB', which is found on Nexus Mods.

Exploring Vault 18, talking to the huge number of named, fully voiced characters, I forgot I was playing a fan-made mod. This is genuinely as good as anything in the main game, except for a few minor NPCs whose voices are clearly being performed by amateurs. The framerate also takes a massive hit in the atrium, but this is something the creators are aware of and will address in a future patch. The fact that something like this is even being patched at all is impressive, and shows how dedicated the devs are. There's a lot more going on here in terms of environment size and clutter, so if you have an old PC you might run into some problems, even if *New Vegas* runs fine.

Later, a violent civil war breaks out in Vault 18. A cell of Enclave calling itself the Patriots goes to war with the local security forces, and you end up trapped in the middle of it. It's revealed that Bragg, the leader of the Enclave forces, is your vault-ball coach, and you can decide whether to join or fight against him. Whichever path you choose, the escape from Vault 18 plays out in a bunch of different ways. I sided with the Enclave the first time and was horrified to see them coldly butchering the people I'd gotten to know in the prologue. Then, when you leave the place behind, you find yourself in the dusty mountains of California during a golden sunset.

TAKING SIDES

The vault escape mission is well designed, although I did have problems with events not triggering and characters attacking me for seemingly no reason. I mean, as far as I know. There's a lot of reactivity here, and I could have been wearing the clothes of a rival faction without realising. Even so, it's much more entertaining than the similar introduction in *Fallout 3*, and I still occasionally had to pinch myself as a reminder that this was a mod I was playing. When you emerge from the vault you find yourself in a forested valley and make your way towards the town of Pinehaven, which is where your adventure in *New California* really gets going.

Another war has broken out topside, this time between the Enclave and the New California Republic. You get a taste of this when you emerge from the vault and see explosions on the horizon and vertibirds fighting in the sky. Then, to make matters worse, you're kidnapped by a gang of raiders and end up imprisoned in a cave network beneath their base populated by pale, creepy cannibals called the Voiceless. Their spokesman, Mevil, delights in the fact that you might be their next meal, forcing you to charm your way off the menu. Charisma, I came to discover, was an important stat to have in *New California*.

> **IT'S A GAME IN ITS OWN RIGHT, AND ALMOST ON PAR WITH OBSIDIAN'S OWN EXPANSIONS**

In the space of a few hours you go from star vault-ball player to food for a tribe of cave-dwelling flesh-eaters. But like anything in *Fallout*, there are several ways to get out of the caves and get your revenge on your captors. I won't go into too much detail, but my method of escape involved rallying a small army of Voiceless to help me defeat... something. Something big and scary and extremely unpleasant. There's a lot of combat in *New California*, but also a huge number of speech checks depending on your actions, stats and other factors, which enhances the RPG side of the mod.

There's an enormous amount of variety in this thing. The missions, characters, locations and everything else feel hand-crafted and bespoke. It reuses some assets from *New Vegas*, naturally, but there are way more custom-made textures, models, and sounds here than I ever expected to see from a mod. To the point where calling this a mod, or even a total conversion, kinda feels like a disservice. It's a game in its own right, and almost on par with Obsidian's own expansions.

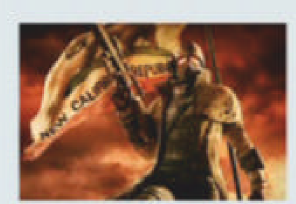
But when one problem is solved in *New California*, another is waiting to take its place. A vertibird crash leaves you stranded in the desert, on the remains of an old highway, and you end up in the middle of another battle. This time you have a little help from an NCR ranger called Vargas, however, and spend some time with her fighting along the highway and dodging nuclear mortar shells. Bethesda's creaky *Fallout* engine doesn't handle these war scenes that well, but the design of the setpieces is pretty dramatic. The creators have squeezed some chaotic, cinematic stuff out of this old tech, even if the framerate judders under the weight of it all occasionally.

BIG CITY

If you survive the highway battle you'll make it to another of the game's big hubs, Union City. This isn't quite as packed with stuff to do as the cities in the main *Fallout* games, but it's an interesting enough place to explore. Later you'll venture out into the wilderness and encounter a tribal community who live in ramshackle village called Xiabula. It has access to fresh water that Union City needs, and you have yet more options in how you get it for the city. There are more quests than most people will finish in *New California*, although I would have liked some more rewarding exploration. There isn't much to find on the map if you stray away from the path set by the creators.

New California is a remarkable achievement, and one of the most confident and professional mods I've ever played. I didn't think I'd ever go back to the 3D *Fallout* games after playing them to death, but this made them exciting again. Longtime *Fallout* fans will also appreciate the attention to detail when it comes to the story, as this is arguably more respectful of the series' lore than what Bethesda and even Obsidian came up with in their games. It isn't canon, of course, but makes its own mark on the mythology in some interesting ways, particularly in exploring the motivations of the sinister Enclave. ■

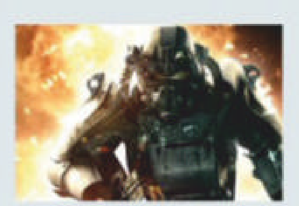
SIDE BY SIDE *Know your factions*



NEW CALIFORNIA REPUBLIC
A large, benevolent and democratic federation of states formed in the wake of the nuclear fallout. With over 700,000 members, it controls parts of Nevada, Mexico and has bases along the Colorado River.

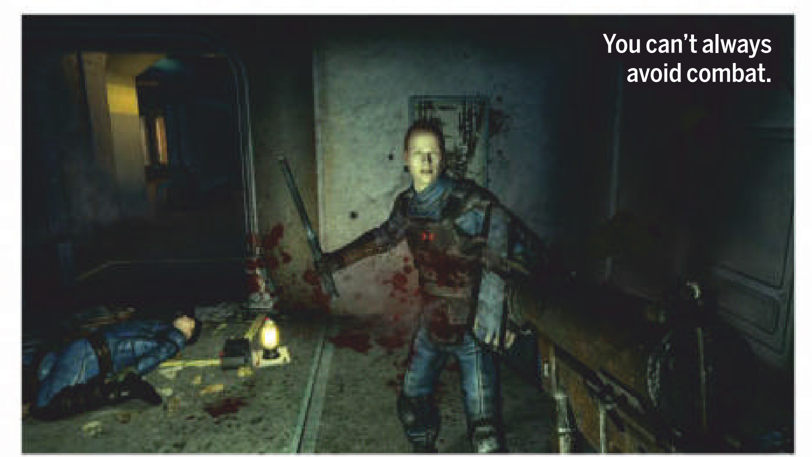


ENCLAVE
A technologically advanced organisation that styles itself as the continuation of the prewar federal government. Before the bombs fell it secretly controlled the US government from the shadows.



BROTHERHOOD OF STEEL
A semireligious group that covets technology, using it to impose order on the wasteland. It has roots in the prewar scientific community and military, meaning its members understand tech more than most.




You can't always avoid combat.



Making friends in the vault.

It ain't much nicer on the surface.

OPTIMISE GAMES ON AN OLD PC

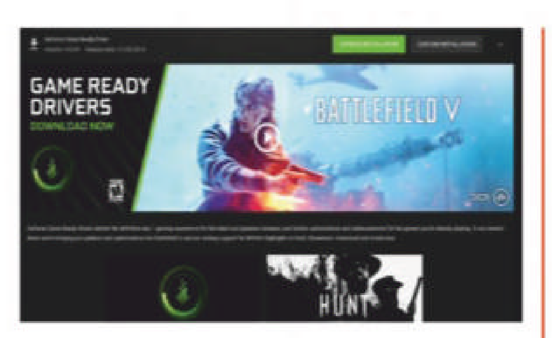
Squeeze the most out of your aging rig with these tips. *By Dave Meikleham*

NEED TO KNOW

DIFFICULTY
Low

TIME
30-60 mins

VITAL LINKS
Fraps:
www.fraps.com
MSI Afterburner:
www.bit.ly/aftermsi
CPU-Z:
www.bit.ly/cpuid-z



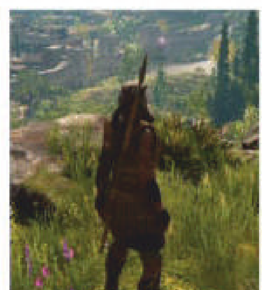
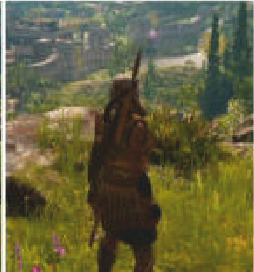
UPDATE YOUR DRIVERS

1 Though it sounds basic, make sure you have the most recent graphics drivers. Outdated ones can sap performance, so visit AMD's and Nvidia's sites regularly (or download Nvidia Experience) to make sure they're updated.



USE FXAA

2 Anti-aliasing makes games look smoother, but it can also nuke your framerate. Most titles support FXAA, which is far less taxing than either SMAA or MSAA. If you want to claw back frames, FXAA is the option to go with.

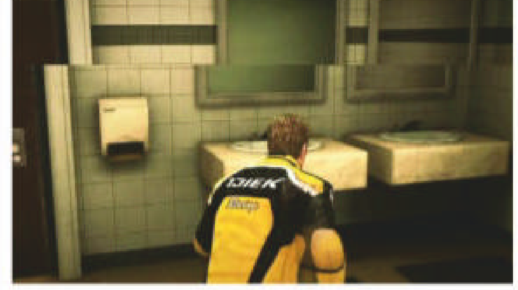
TURN OFF AMBIENT OCCLUSION

3 AO is a performance killer. Sure, it adds depth and texture to games, yet unless you have the obsessive eyes of a Terminator, you're unlikely to notice its absence. Switching it off can often save you upwards of 10fps.

LOWER SHADOW DETAIL

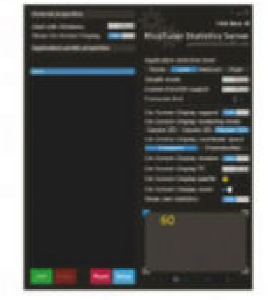
4 Shadow settings carry a large performance penalty, and in motion it's difficult to tell the difference between high and medium quality. Save frames and lower shadows.





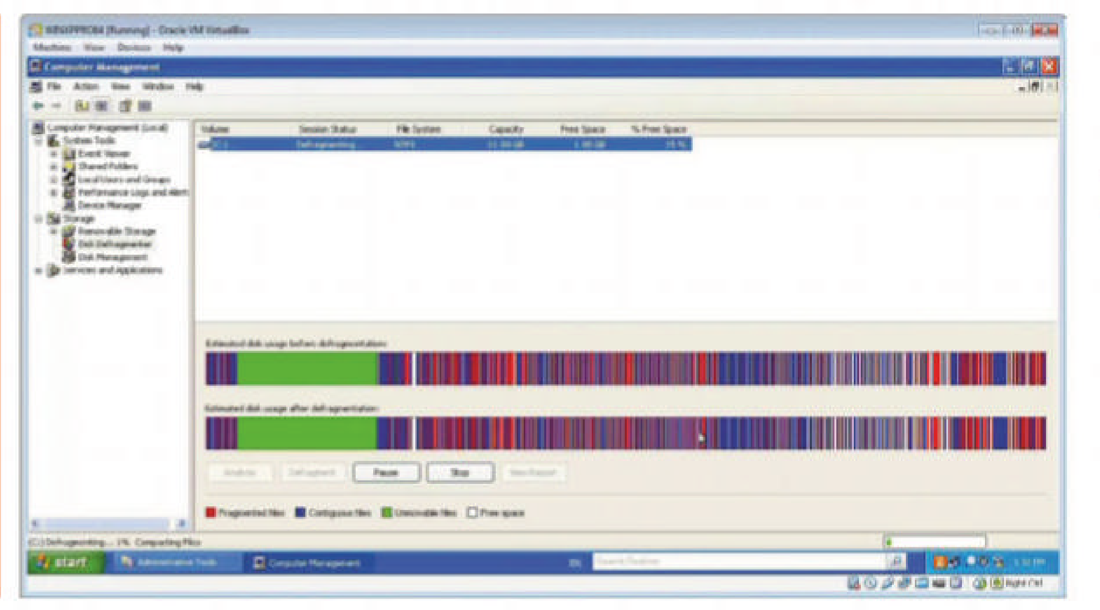
DITCH V-SYNC

5 While v-sync prevents screen tearing, it also adds latency. If you're struggling to hit a steady 60fps, and don't mind the occasional torn frame, disabling this feature in your display settings can make games feel more responsive.



USE A FRAME LIMITER

6 A stable 30fps is far better than fluctuating between the mid 50s and low 40s. If 60fps is off the table for your rig, download RivaTuner and enable its framerate cap, then set it to 30 to deliver more consistent performance.

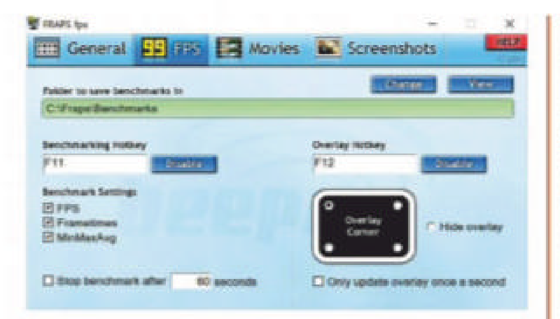


DEFRAG YOUR DRIVE

7 Uncluttering your drive can make games run faster. Defragging at least once a month increases the lifespan of your HDD and centralises games-specific files in one location, ensuring smoother performance.

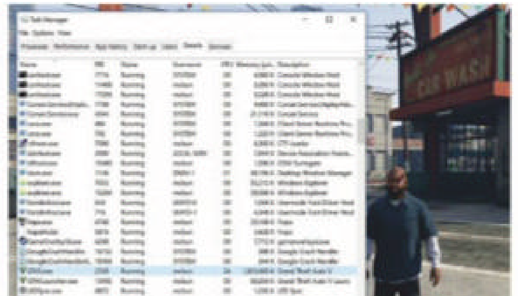
TECHNIQUES IN ACTION *An example from my own archives*





BENCHMARK WITH FRAPS

8 This free fps-monitoring tool lets you easily benchmark a game's performance in a flash. If you want to see how high settings compare to that medium preset, run a Fraps benchmark for instant high, low and average fps readings.



PRIORITISE GAMES IN TASK MANAGER

9 Use Task Manager to prioritise game performance over other programs. Go to the 'Details' tab, then right-click on a title you're running and set the 'Priority' option to high to ensure optimal performance.

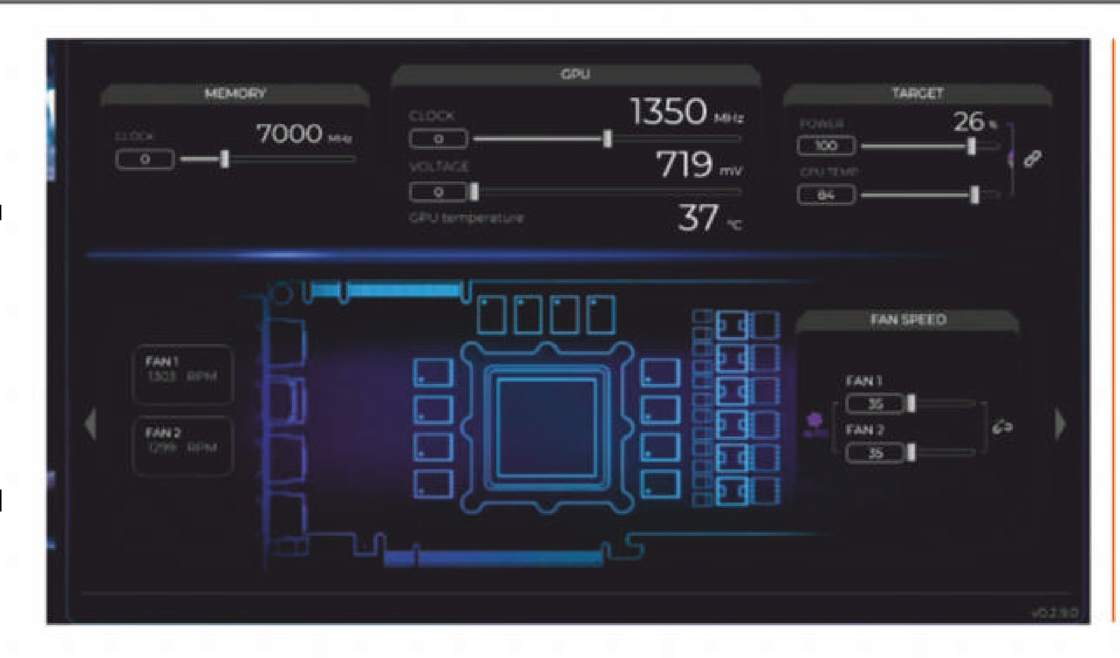


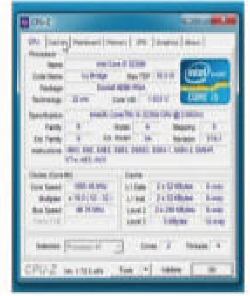
ENABLE DYNAMIC RESOLUTION

10 An increasingly common feature, the likes of *Forza Horizon 4* and other titles change resolution on the fly to uphold performance. If you need more frames, enable this option to smooth out fps with only a slight hit to image quality.

OVERCLOCK YOUR GPU

11 Even if your GPU is showing its age, you can always squeeze a bit of extra performance out of it with free overclocking tools, like EVGA Precision X or MSI Afterburner. A small increase to the core clock can give you a nice little fps boost.





OVERCLOCK YOUR CPU

12 Overclocking your CPU, especially in physics-heavy open world games, can increase your fps. Use a free tool such as CPU-Z to analyse your processor's performance, then overclock your CPU in your motherboard's startup menu.



Metro turns claustrophobia into an aesthetic

Laser Quest was the Metro's favourite pastime.

METRO: LAST LIGHT

The grungy FPS that wipes its face with the competition. *By Rick Lane*



M*etro's 2033*'s gas mask was what made the game more than just another post-apocalyptic FPS. By forcing you to wear this airtight faceplate, *Metro* maintained its sense of claustrophobia even when exploring a wide-open space. The tension of hearing your breath become laboured as the mask's filter struggles to clean the toxins from the air. The cracks that appear as you're battered about by the mutant wildlife. It's more important to making *Metro* work as an experience than any of its guns.

But the gas mask is crucial to *Metro*'s immersion in another way. It acknowledges that the player is separated from the game world by a screen, and by separating the main character Artyom from the world in the same way, it compounds that sense of immersion, drawing the player deeper into the game world.

Metro: Last Light takes this idea one step further. As you explore the cracked and blasted landscape of irradiated Moscow, the mask will become gummed up with various substances, be it mud splashed up from a nearby puddle, or blood from an enemy you've just blasted with a shotgun. But with a quick tap of the G key, your character will wipe the faceplate clean with his left hand.

It's an entirely unnecessary flourish, and yet this tiny action adds so much to *Metro*'s sense of immersion. To have the player character reach up and touch that screen from the inside of the game, that's a whole other level of ingenuity, not simply turning the fourth wall into a window, but having the audacity to then knock on it.

This is why *Metro: Last Light* is my favourite variant of the post-apocalypse. It wraps you so tightly in its worldbuilding that at points your character is literally wearing it. It seems all the more impressive when you consider that, unlike *Fallout*, or *Metro*'s cousin *STALKER*, *Last Light* is staunchly linear. But linearity is what makes *Metro*'s fiction work, a style as much as it is a structure.

TIGHT FIT

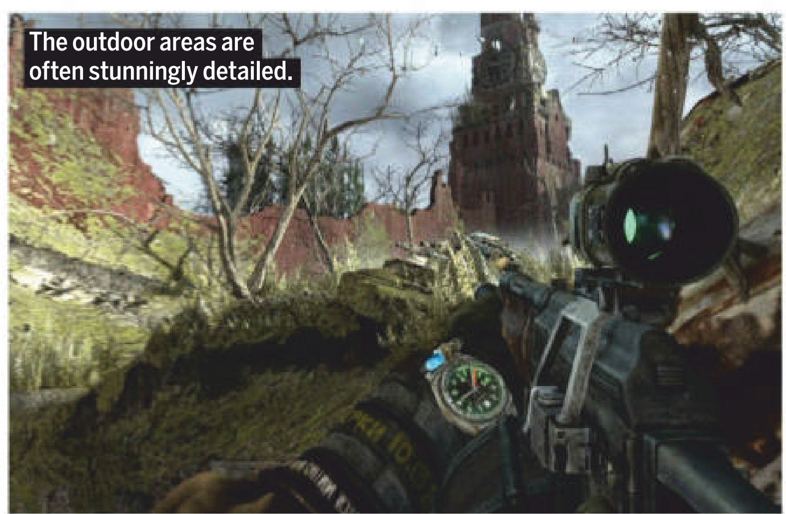
Metro turns claustrophobia into an aesthetic, constantly making the player feel squeezed and restricted as they traverse the labyrinthine tunnels of the Moscow subway system. The gas mask is one example of this, but there are others. The world is deliberately designed to feel cluttered, particularly in the settlements that the player passes

NEED TO KNOW

RELEASED May 14, 2013	**DEVELOPER** 4A Games
PUBLISHER Deep Silver	**LINK** www.metrothegame.com


Just some gruff Russian men doing gruff Russian men things.


The citizens of the Metro fear the marshmallow monster.


The outdoor areas are often stunningly detailed.

through. The world is crammed with environmental details, as humanity tries to pull a city's worth of resources underground. Even character attire is designed to appear bulky and cumbersome, making you feel even more pressed-in when passing through populated areas.

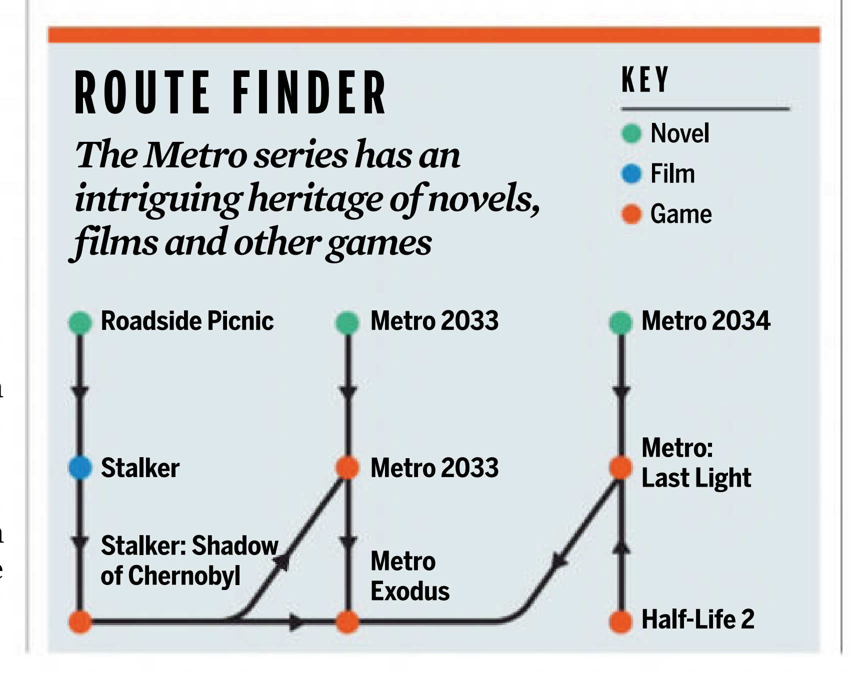
As a sequel, *Last Light* makes small but important improvements over *2033*. From a mechanical perspective, stealth actually works, enabling players to use silenced weapons and melee attacks to take out guards from the shadows. The confined nature of *Metro*'s levels still makes stealth difficult, as you need to be very precise in your movements. But it's no longer impossible.

The most significant changes are also the less tangible ones. *Last Light* is a better paced game than its predecessor, with a greater variety in level design and setpieces. In its approach, *Last Light* takes inspiration from *Half-Life 2*. This is apparent in the structure of the game, such as the way one level flows more neatly into the next, and the greater emphasis on NPC companions. But there are more specific areas where 4A has borrowed from Valve's masterful sequel. There's a sequence in which you drive a rail car through a tunnel infested with insectoid enemies; an obvious nod to Highway 17. Later, you have to navigate through the structure of a vast bridge, which again bears strong resemblance to a similar setpiece in *Half-Life 2*.

Last Light also follows in the footsteps of *Half-Life 2* by providing a more rounded and mature story compared to its predecessor. *Metro 2033* concludes with Artyom unleashing a barrage of nuclear missiles to destroy a race of post-human mutants known as the Dark Ones. In the sequel, it transpires that the Dark Ones may not have been hell-bent on extinguishing humanity, and Artyom is plagued with guilt about being the man who pushed the button. As such, when Artyom is given a mission to track down and kill the last surviving Dark One, he instead decides to try to protect it.

ROUTE FINDER

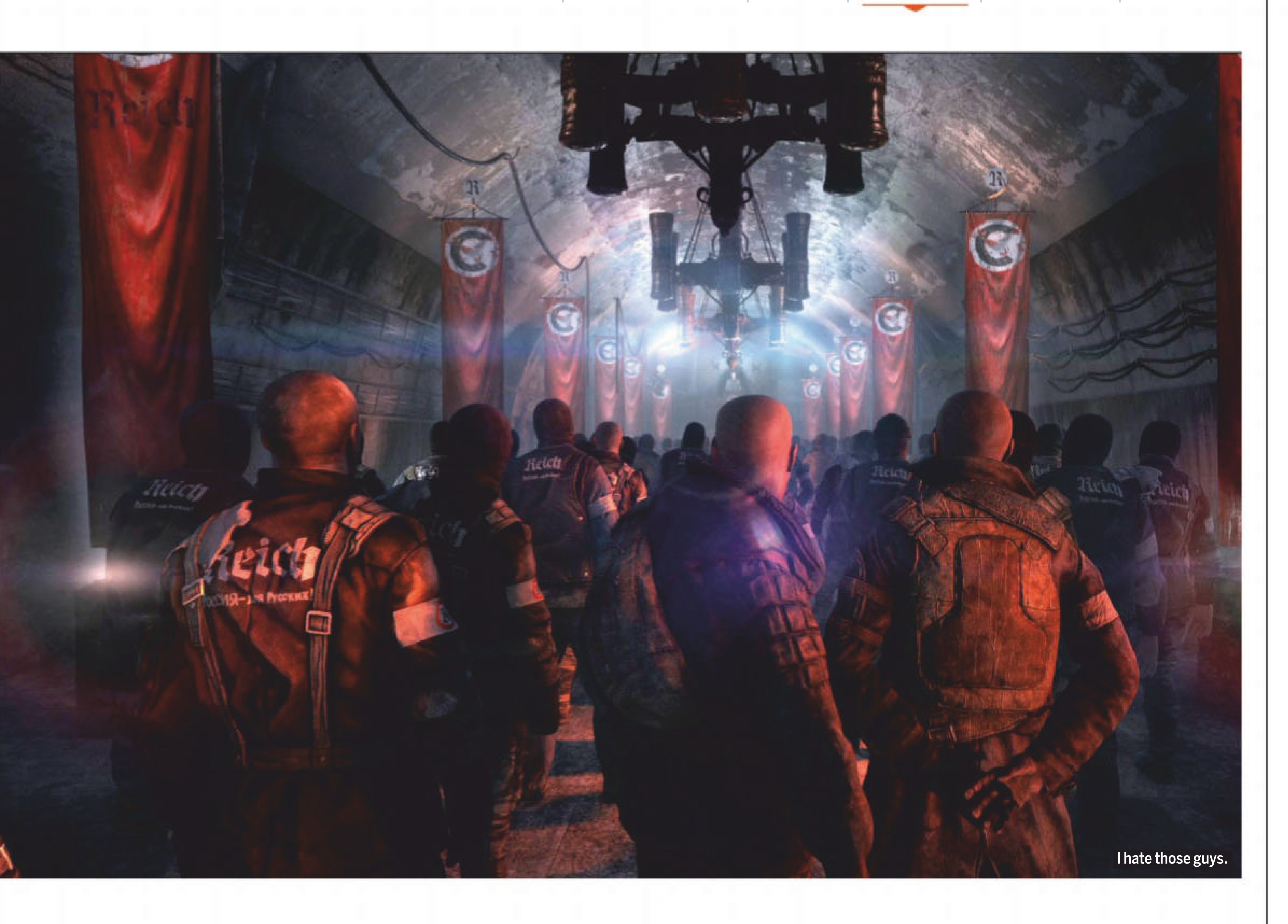
The Metro series has an intriguing heritage of novels, films and other games



ACTING OUT

Last Light's story is interesting and generally well written, but it fumbles the delivery with some wooden English voice acting and the cringeworthy representation of its few female characters. The scene in the strip club remains one of the least erotic things I've ever witnessed, and this is a game in which you fight giant mutated pigs.

Yet while *Last Light* has its lows, they are outweighed by its highs. Early on, you're captured by the Metro's Nazi faction, but are helped to escape by a Soviet soldier named Pavel. A goofy, affable fellow, Pavel is likeable, and the game does a great job at establishing the bond between



I hate those guys.

LAST LIGHT'S MOST IMPACTFUL MOMENTS DON'T STEM FROM THE LIVING

him and Artyom. At one point, Pavel says, "We're like the three musketeers… if there were two of them," which sums up his personality.

It soon transpires this personality is a facade. Pavel is far more than a grunt in the Metro's Red Army, and rather less than your friend. The moment he betrays you is genuinely galling, not least because you get the sense that, deep down, his sense of kinship toward you was not entirely feigned. Afterward, Pavel becomes the human focal point in Artyom's mission, spending much of the rest of the game chasing his former comrade down. This culminates in a climactic battle near Red Square that is as spectacular as it is bittersweet.

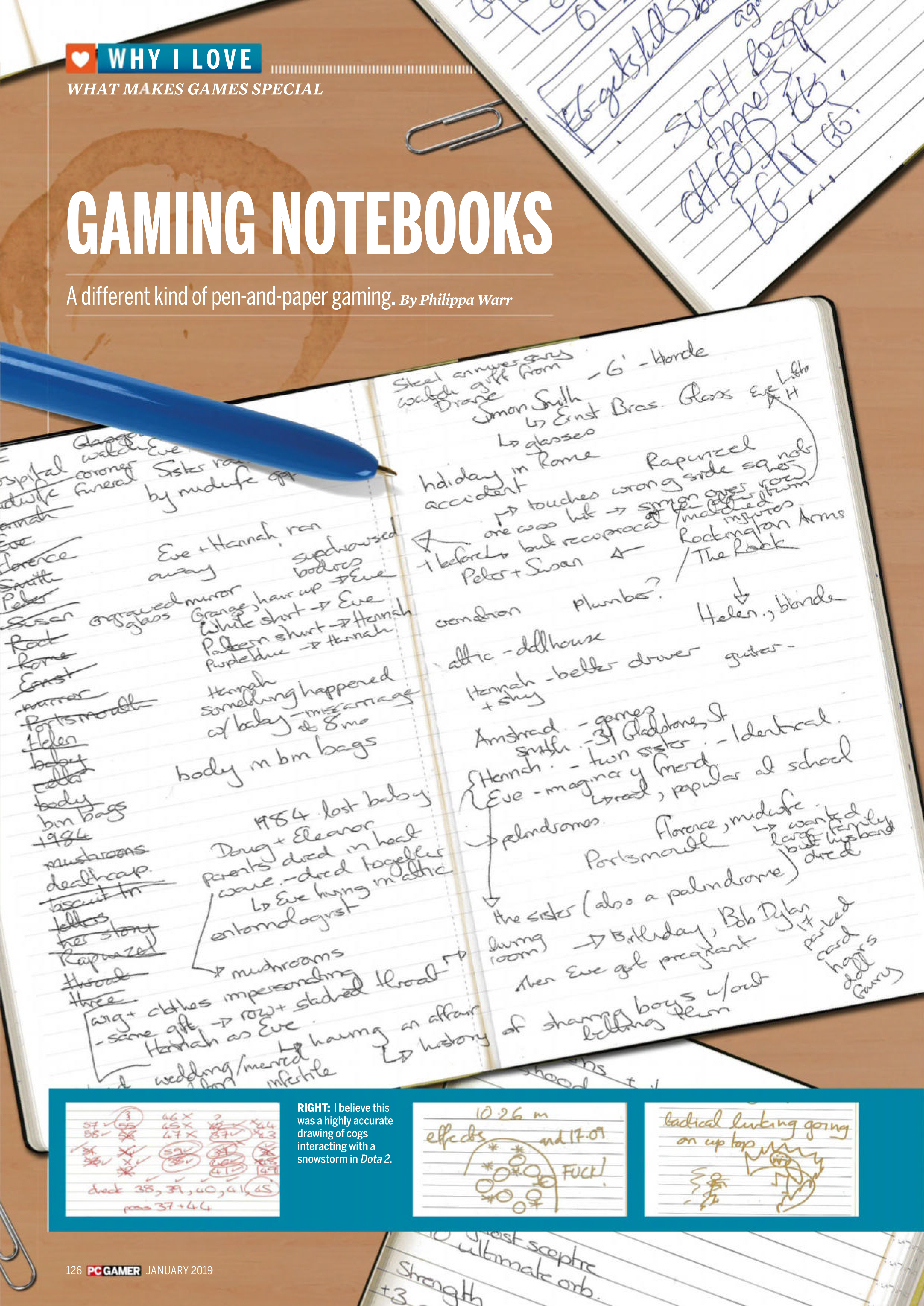
The relationship between Pavel and Artyom is by far the game's strongest human thread. But *Last Light*'s most impactful moments don't stem from the living. *Metro* is at its best when exploring the eerie horror of its own imagined apocalypse. As you investigate the wreckage of a passenger jet, flashes of the plane's final moments play before your eyes. Toward the end, you explore an area of Moscow where the shadows of the dead linger on, oblivious to their own demise. In one ruined apartment, the shadow of a child plays with his toys, waiting for a mother who no longer exists to come home. This is *Metro*'s worldbuilding at its most powerful, strange, haunting and tragic.

GUIDING LIGHT

Through all this, *Last Light* never forgets its status as a shooter, and is built to play to a very satisfying rhythm, balancing its atmospheric storytelling with bouts of intense combat. The game uses a clever 'feast and famine' approach to dishing out ammo and mask filters. In one level you'll feel prepared for anything, but in the next you'll be down to throwing knives at your opponents as you gasp for air through your half-shattered mask. In my most recent playthrough, I actually ran out of ammo against one of the game's (few) bosses, and would have been done for were it not for a single claymore mine hiding in my inventory.

The action also escalates in a surprisingly subtle way, guiding you towards increasingly perilous situations without you fully realising it. The final third of the game sees you trekking across the surface during a truly awe-inspiring thunderstorm, the wind whipping thick tendrils of rain across your vision as dazzling bolts of lightning fork down from the sky. Here, the mask-wiping function truly comes into its own, with you almost constantly brushing mud, blood and rain off your visor as both the storm and the combat continually intensify.

It's these delicate rhythms of play that make the *Metro* games such excellent linear shooters, which makes 4A's decision to move to a more open format with *Exodus* all the more intriguing. Open world may appear a more logical fit for *Metro*'s pseudo-survival systems. But replaying *Last Light* has reminded me of how linearity is so fundamental to its success, and I just hope that the broader canvas of *Metro Exodus* doesn't cost the game its uniquely eerie atmosphere. ■



GAMING NOTEBOOKS

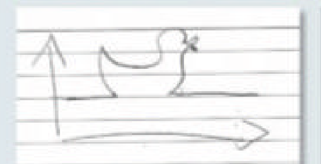
A different kind of pen-and-paper gaming. *By Philippa Warr*

RIGHT: I believe this was a highly accurate drawing of cogs interacting with a snowstorm in *Dota 2*.

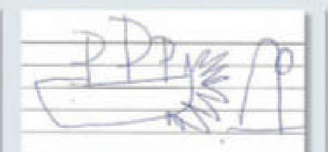
Something I miss when I play digital games is the tactile side of play. It's why videogames and board games coexist in my life so beautifully. One allows for complexity beyond what a pen-and-paper can track, and the other offers tokens to hold, boards to construct, people to physically turn to as you play. Somewhere in the middle are a wonderful selection of videogames where you feel compelled to take notes.

DECIPHERING MY DOTA DOODLES

Trying to remember what any of this meant



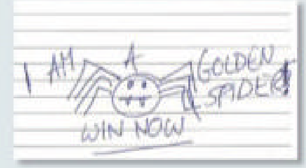
LITTLE DUCKY
Ducks over time? I mean, there are no ducks in *Dota* but maybe this tells us there will be if we wait.



EXPLODING SHIP
This is clearly Kunkka's ghost boat crashing into the evil tentacle from *Day of the Tentacle.*



"DEATH"
Life's only certainty is also my notebook's only certainty. DEATH. And a tiny, tiny boat.



GOLD SPIDER
The golden spider *did* win but it was also invisible and had a glowing red butt at the time.

I'm not talking about games which demand you fetch a sheet of paper as part of the experience. These are games where my experience just happens to spill over into the real world as drawings and words. The ones where I decide to keep my thoughts straight by idly jotting down words, phrases, the location of a treasure to come back to or an area to investigate more thoroughly.

After a while the odd word or two becomes a page, perhaps even a map. Arrows allow paragraphs to put out little runners, setting down roots in blank spaces and fruiting whole new clusters of notes.

PLAYING DETECTIVE

Her Story is one such game. The interface allows you to store a certain amount of information – you can add tags for each video clip, and keep a handful saved for reference. What it doesn't offer is a way to note all the different potential search terms a new clip throws up and which you want to work through when you're constantly being sidetracked.

To stop myself forgetting, I reached for my notebook. A record of the victim started to accumulate on one page while the local pub formed another hub. The left side filled up with keywords. One cluster of notes tried to follow outfit changes but it got hemmed in by a lost baby, a widowed midwife, mushrooms, mirrors and a forensic entomologist.

I had enough for a basic solution to the crime after a couple of hours so that's tangled in there, too. But so many words remained uninvestigated and I wanted to check my working, so I kept going. The result is a section of notebook brimming with curiosity. I like it not so much because it's a useful record of information – my notes are as baffling to me as to a stranger once the game has faded from memory – but because the volume of writing, and the energetic connections make visible parts of the process of playing a game.

My *Return of the Obra Dinn* notes take on a different form, but the affection I feel is the same. Having spent the majority of the game keeping all the information in my head or using the map and crew documents as reference points, I reached for my notepad. I needed to cross reference a lot of objects and a lot of names to make progress.

Instead of evidence swelling into lumps of story on the page like it did in *Her Story*, that part happened in my head and my notebook was about ruling out possibilities. Numbers and names have circles round them, grouping them in ways which are already fading from my mind. These pages feel more like a code because of the shorthand and abstractions.

Different again are my esports notes. For *Dota*, *League* and *Smite* I'm in the habit of recording each match at an event in my book. Every match starts with the list of players and which characters they've picked as well as who got banned. It's a ritual that helps me settle in for a game as much as a journalistic reference. After all, I could just check VODs or a wiki for that data if I forget.

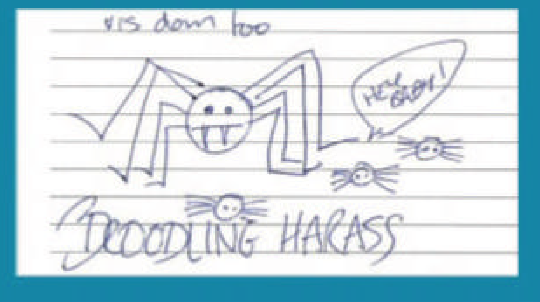
MATCH REPORT

Writing character names over and over helps me absorb trends in the game – it gives them an analogue feel as well as their digital flavour. Sometimes I write out skillsets for characters I haven't played in a while. And then it's just whatever feels noteworthy from the match. Key kills, maybe, and big fights, weird decisions, unusual item choices. But I also add scrappy sketches and during

AFTER A WHILE THE ODD WORD OR TWO HAS BECOME A PAGE, PERHAPS EVEN A MAP

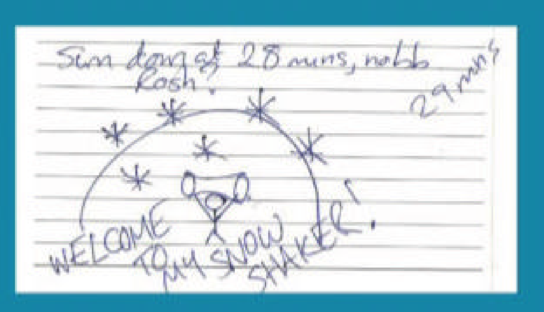
a tense game the breathlessness and excitement on the screen leaves a mark in my book. The writing gets faster, harder to read apart from upper case explosions of record-keeping, and it's smothered in ellipses and exclamation marks.

The notes I make around games – scrawled maps to remind me of a route, gold marker pen spiders nudging up against swearwords, lists of murder suspects that span double page spreads – are some of my fondest possessions. They allow a digital pursuit to spill over into the physical world and express so much time, excitement and mental energy. Just don't ask me what they mean! ■



RIGHT: Lion (who is a Demon Witch in *Dota 2*) can turn an enemy into a frog. A limited edition cosmetic item swaps that frog for a fish.







ANDY KELLY



In ancient Egypt they played senet; today I play *MGS*; in the future... who knows? Play is eternal.



METAL GEAR SOLID V: GROUND ZEROES

www.konami.com/mg/mgs5/

Infiltrate a grim military prison and rescue hostages in this surprisingly deep prologue to *Metal Gear Solid V*. Silently sneak your way through with tranq darts or wipe out guards with a sniper rifle. You might think this is a glorified demo, but the 27 hours I have logged on Steam say otherwise.



RETURN OF THE OBRA DINN

www.obradinn.com

Lucas Pope's mystery joins *Her Story* as something that could only exist as a videogame. You climb aboard the Obra Dinn, a stricken merchant ship, and use a magical watch to determine what happened to the crew. This is a hugely satisfying detective-style game, and it never holds your hand.



TAKE ON MARS

www.bit.ly/takeonmars

Based on real science, this simulator lets you build your very own Curiosity-style rover and explore the surface of Mars with it. It's a slow, uneventful game, but the haunting atmosphere of the red planet makes it strangely compelling. And if you want a bit more fi with your sci, you can simulate a manned mission, too.



PRISON ARCHITECT

www.introversion.co.uk/prisonarchitect

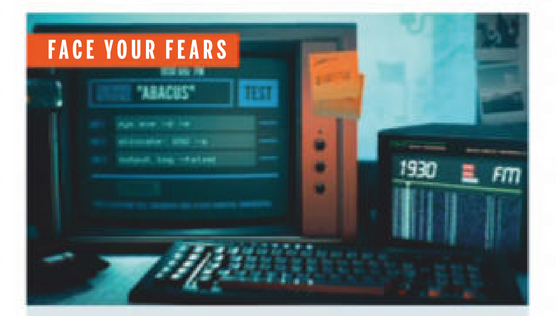
Don't let the art style fool you: this prison-building and management sim reflects the reality of life in the big house. As a warden you'll have to deal with riots, escapes, executions and, worst of all, spreadsheets. Brilliantly, you can even end up as an inmate in your own prison if your negligence leads to too many deaths.



DUSKERS

www.bit.ly/duskers

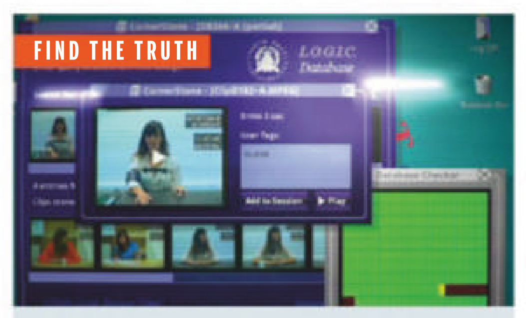
With a retrofuturistic aesthetic reminiscent of the computers from '70s sci-fi movies, this game about scavenging starships with drones features horror, strategy and an unnerving atmosphere. You don't see much in *Duskers* other than a digitised display, but that's what makes its encounters so scary.



STORIES UNTOLD

www.storiesuntoldgame.com

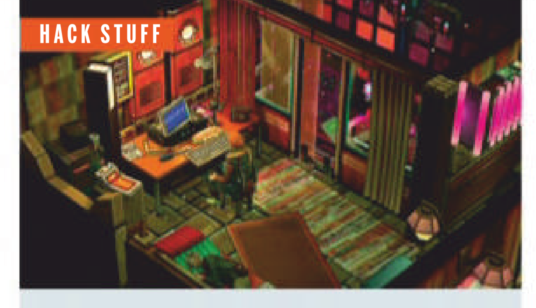
An anthology of nerve-racking horror stories built around the idea of interacting with a variety of archaic computer systems. In one you play a text adventure that bleeds into reality. In another you're a scientist testing an alien artefact. Developer No Code's next horror game, *Observation*, looks just as stylish.



HER STORY

www.herstorygame.com

Take a nonlinear path through a compelling crime mystery by searching an archive of video clips. The story becomes a little bit clearer with each one you uncover: a unique structure that, combined with believable police interview clips, makes *Her Story* a bold, compelling narrative experiment.



ELSE HEART.BREAK()

www.elseheartbreak.com

In a digitised world anything can be hacked. That's the premise of this stylish game about love, freedom and cybercrime. A tool called a Modifier can be used to hack pretty much any object and change how they behave, and hero Sebastian uses his coding skills to join a gang of idiosyncratic hacktivists.

FALLOUT 76 introduces us to a new vault, Vault 76, but what other sinister Vault-Tec experiments are still waiting to be discovered?

Vault 411

This Vault will offer every luxury its inhabitants could imagine. The finest food, the most tasteful decor, the softest furnishings. But it will always be precisely three degrees too warm. Current prediction for total societal collapse is a week, but we hope to improve on this.

Vault 122

In this vault of 200 inhabitants there is one bathroom, and meal times are specially timed so that everyone needs to go to the toilet at the same time. This experiment should prove that… should illustrate how… oh, who am I kidding. We just thought it would be funny.

Vault 152

Every day, a painfully high-pitched shrieking sound will play from speakers around the Vault. The inhabitants won't know exactly when, because it's randomised, and so will live in eternal fear of the shriek, for as long as they live. Reason for experiment TBD.

Vault 254

The inhabitants of this vault were selected for their strong political opinions and pig-headed belief that they're right about everything. By engaging in debate, we believe they'll eventually accept each others' opposing views and live forever in harmony. Hahaha.

Vault 766

Day in day out, the inhabitants of this Vault will have to play a oft-broken online videogame, working with their fellow citizens to complete menial tasks and spend the money they earn on exorbitantly priced, and ultimately meaningless, aesthetic upgrades.



...UNTIL JANUARY 10